

# NAVY MEDICINE

SPECIAL ISSUE

Official Magazine of U.S. Navy and Marine Corps Medicine



## THE ALMANAC | 2013

WORLD-CLASS CARE ... ANYTIME, ANYWHERE

# NAVY MEDICINE

Official Magazine of U.S. Navy and  
Marine Corps Medicine

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NAVY MEDICINE is the professional magazine of the Navy Medical Department community. Its purpose is to educate its readers on Navy Medicine missions and programs. This magazine will also draw upon the medical department's rich historical legacy to instill a sense of pride and professionalism among the Navy Medical Department community and to enhance reader awareness of the increasing relevance of Navy Medicine in and for our nation's defense.

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##### SUBMISSION REQUIREMENTS:

Articles must be between 600-1,000 words.

All articles must be present tense/active voice.

Photos must be minimum 300 dpi.

Photos showing action are preferred.

All photos must be accompanied by a caption and photo credit.

Subjects considered:

Scuttlebutt: Stories about activities at MTFs and the field.

Photo Album: Action shots from across Navy Medicine.

Feature Articles: Stories featuring interesting contributions of Navy

Medicine to military operations including everything from combat

support to Humanitarian Relief/Disaster Response will be considered.

Please contact Paul Ross (paul.ross@med.navy.mil) for current theme of issue in progress.

R & D and Innovations: Any new processes and/or research and development news.

Quality Care: Anything that improves the quality of care for our patients.

IT, QA: Any articles showing how Navy Medicine is utilizing the electronic age.

Shipmates: Anything interesting about our shipmates working in the healthcare field in the Department of the Navy.

All submissions must be accompanied by complete contact information for author. In the event there is more than one author please assign one author to be primary correspondent.

Feedback Welcome  
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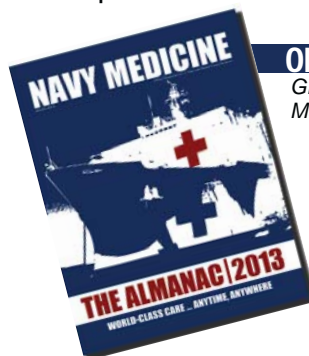
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#### ON THE COVER

Graphic illustration created by  
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A photograph of two surgeons in blue scrubs and masks, focused on a surgical procedure. Two large, circular surgical lamps hang above them, casting a bright light on the operating area. The background is dark, emphasizing the surgical team and their work.

**NOT ALL OF OUR LASER-GUIDED  
SURGICAL STRIKES INVOLVE MISSILES.**



The ability to zero in on a target and destroy it. It's just as important in an operating room as it is on the battlefield. America's Navy has thousands of highly skilled physicians who are making a difference in the lives of those less fortunate every day. To learn more about full-time or part-time careers, visit [navy.com](http://navy.com) or call 1-800-USA-NAVY.

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NAVY**

**A GLOBAL FORCE FOR GOOD.™**

# ADMIRAL'S CALL

**W**elcome to the third edition of Navy Medicine's annual guide! I am humbled with the opportunity to lead this outstanding organization and the 63,000 men and women who work to provide the highest quality care to our Sailors and Marines. Navy Medicine's current state is extremely strong as we surmount challenges and create better and more effective ways of doing our jobs.

You may have noticed the change in the publication's title from "Owners' and Operators' Manual" to "The Almanac." This change has been made to create a product unique to Navy Medicine and its mission, and to make it distinct among publications with similar monikers. Within these pages you will find a guide to all things Navy Medicine.

The whole purpose of this "special issue" of our quarterly-published Navy Medicine Magazine is to show readers the "nuts and bolts" of our force. From the most seasoned Sailor to a civilian far removed from military service, the information in this magazine showcases who we are and what we do.

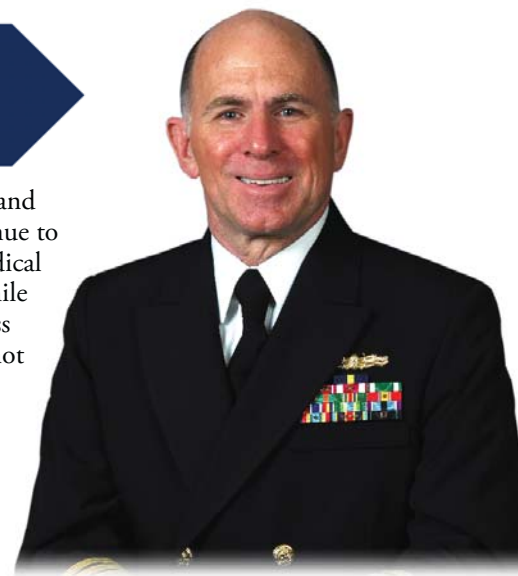
Within this column I will highlight where we are as a service and what our goals and priorities will be going forward.

In order to navigate the tasks and challenges ahead, we must continue to maintain the highest state of medical readiness for our naval forces, while bringing more value and jointness to our operations. So, it should not come as a surprise that we have focused our three goals of value, readiness and jointness around these missions.

The importance of each goal is directly tied to how it affects our mission and the population we serve.

Navy Medicine is in the readiness business. We have to be agile, forward-leaning and ready to deploy in support of the warfighter and similarly we have to work to ensure that our warfighters are equally prepared. Each facet of the Navy Medicine mission has an impact on our readiness. It's what we do and why we exist. From an independent duty corpsman serving in a submarine, a flight surgeon serving our naval aviators, deployed civilian medical staff or a Navy corpsman embedded with the Marines, you provide adaptable capabilities globally across the range of military operations in support of the national defense strategy.

The next goal after maintaining a ready force is to ensure we find value



in everything we do. Placing emphasis on preventive medicine and the overall health of our patients will improve readiness and quality of life while giving us more "bang for our buck" as costs associated with care go down because of healthier beneficiaries. We are going to meet this goal in a variety of ways including preventive medicine treatments like tobacco cessation programs or health and nutrition programs as opposed to solely treating symptoms.

Along with these programs, Medical Home Port teams are improving care for our beneficiaries by decreasing wait times, allowing more access, and increasing communication between the patient and health care providers. The next step is to build upon these initial successes and improve the standardization of care that will improve patient experience and create a more efficient, responsive care structure.

Our third goal is jointness. The dynamic nature of the military and its missions has increased our opportunities to work with our sister services, the Department of Veterans Affairs, and academic partners. These partnerships can be in a research lab developing a new vaccine or on a mission to MEDEVAC a patient off the battlefield. We all need to embrace these opportunities to learn from one another and leverage best practices from every source as Joint operations become a more regular part of our work. By building on each other's strengths, learning other cultures, and

**Navy Medicine is in the readiness business. We have to be agile, forward-leaning and ready to deploy in support of the warfighter and similarly we have to work to ensure that our warfighters are equally prepared.**





**Vice Adm. Matthew Nathan, the 37th surgeon general of the Navy and chief of the Navy's Bureau of Medicine and Surgery, congratulates Petty Officer 1st Class Brandie Mendoza, Headquarters Battalion, 1st Marine Division (Forward), Camp Leatherneck, Afghanistan, April 17. Mendoza was recognized by her unit for her excellence and professionalism. (Photos by Petty Officer 3rd Class Monique LaRouche)**

also preserving those qualities, traditions, and skill sets that are uniquely Navy Medicine, we will ultimately benefit the population we serve.

A prime example of the kind of joint environment where Navy Medicine's goals of readiness, value, and jointness are exemplified is the Medical Education and Training Campus (METC) in San Antonio, Texas. The program ensures through education and training that our service members are ready to deploy and accomplish the mission of Navy Medicine. The value that this type of training brings to the overall health of our Sailors and Marines and their families is unparalleled.

Additionally, it is through a joint curriculum at METC that we create value by reducing redundancies in training costs while still teaching our corpsmen and medics the life-saving skills in a collaborative environment that has led

to a 97 percent survivability rate on the battlefield. This feat is truly remarkable.

As we set out on this next year, with a new charted course, we will need enablers to help keep us on our set path. We look to medical informatics, the use of telemedicine solutions, and technology; as well as standardizing clinical, non-clinical and business practices; and improving strategic communication and organizational alignment to accomplish these goals. I am certain that through your hard work, dedication, and collaboration, we can achieve these goals.

As always, I am honored and proud to serve as your Surgeon General.

Navy Medicine's complete mission and vision including the strategy map and accompanying documents is available online at: <http://www.med.navy.mil/Pages/MissionandVision.aspx>.

*--Vice Adm. Matthew L. Nathan*

## Navy Medicine Priorities Video


Use your Smart Phone  
to view this video by  
downloading a QR Code  
reader and scanning the QR  
Code. The video can also  
be viewed at <http://www.youtube.com/watch?v=49MaUXJVyts&feature=youtu.be>









A group of Indonesian children are smiling and interacting with a U.S. Navy Corpsman during a disaster relief demonstration. The children are in the foreground, looking towards the camera with joyful expressions. In the background, a man in a striped shirt is smiling, and other children are visible on a grassy field. A large white building with a red roof and palm trees are in the distance.

Navy Hospital Corpsman 3rd Class Frank Martin, assigned to the Blackjacks of Helicopter Sea Combat Squadron (HSC) 21, makes friends with Indonesian children during a Pacific Partnership 2012 disaster relief medical evacuation helicopter rescue demonstration. Pacific Partnership is an annual U.S. Pacific Fleet humanitarian and civic assistance mission that brings together U.S. military personnel, host and partner nations, non-governmental organizations and international agencies to build stronger relationships and develop disaster response capabilities throughout the Asia-Pacific region. *(Photo by Mass Communication Specialist 3rd Class Clay M. Whaley)*



# NAVY MEDICINE 101

## What We Do Force Health Protection

The foundation of Navy Medicine is force health protection and direct support to the warfighter. It's what the enterprise does and why it exists. Navy Medicine is in the readiness business – operating forward and being globally engaged, no matter what the environment and regardless of the challenge. Whether it is on the sea, above the sea, below the sea, on the battlefield or on the homefront, Navy Medicine enables Sailors and Marines to complete their mission.

From the most advanced medical suites and staffs serving on amphibious ships, to the flight surgeons supporting the naval aviation enterprise, to the independent duty corpsman serving in submarines, or to the Navy corpsman embedded with Marines or special forces; Navy Medicine enables the warfighter. Wherever a Sailor or Marine goes, Navy Medicine is there.

In executing its force health protection mission, the 63,000 active duty and reservists, government civilians and contractors of Navy Medicine are engaged in all aspects of expeditionary medical operations in support of warfighter. The continuum of care provided includes

all dimensions of physical and mental well-being. Nowhere is our commitment to force health protection more evident than in our active engagement in global military operations. As our involvement in overseas contingency operations have evolved, we have experienced a burgeoning demand to provide expeditionary combat casualty care in support of joint operations. The Navy Medicine team of physicians, nurses, corpsmen, dentists and mental health providers is working in tandem with the Army and Air Force medical personnel and coalition forces to ensure the physical and mental well-being of our troops and civilians alike.

## Support to our Warfighters and Caring for our Caregivers

Caring for our Sailors and Marines at home and abroad is our first mission, but there is no greater honor than the opportunity to provide care to our wounded, ill, and injured. These brave men and women are heroes and we, who are fortunate enough to care for them, do not take this responsibility lightly. As our wounded warriors return from combat to begin the healing process, they deserve a seamless and comprehensive approach to their recovery. We help them to heal in body, mind, and

spirit. Our focus is multi-disciplinary-based care, bringing together medical treatment providers, social workers, case managers, behavioral health providers, and chaplains. We are working closely with our line counterparts with programs like the Marine Corps' Wounded Warrior Regiments that coordinate with Battalion Surgeons, Deployed Units, and Medical Treatment Facilities to set up anticipated medical appointments, ensuring a majority of medical needs are assessed prior to demobilization. Similarly, the Navy and Coast Guard's Safe Harbor program with its national network of Navy Operational Support Centers support the full-spectrum recovery process for Sailors, Marines, and their families. Based on the types of injuries that we are seeing, Navy Medicine continues to adapt our capabilities to best treat these conditions.

## Global Engagement Humanitarian Assistance/ Disaster Response

Navy Medicine's mission is one with a truly global footprint. We are forward deployed with our warfighters overseas and our research units provide a global health benefit around the world. Navy Medicine personnel serve as ambassadors worldwide and are the heart and soul of the U.S. Navy as a "Global Force for Good."

Our humanitarian assistance/disaster response (HA/DR) missions in direct support of the Navy's Maritime Strategy

### Navy Medicine Video

Use your Smart Phone to view this video by downloading a QR Code reader and scanning the QR Code. The video can also be viewed at <http://www.youtube.com/watch?v=mYaWUeQhJ1Y>



The Navy hospital ship USNS Mercy (T-AH-19) underway off the coast of Manado Bay after the opening ceremony for Pacific Partnership 2012.  
(Photo by Camelia Montoy)





continue to expand because they continually prove to be highly successful. With past support to critical missions like Operation Tomodachi after the devastating earthquake and tsunami in Japan in 2011, Navy Medicine serves the international community as a global leader in HA/DR.

The Navy hospital ships also conduct planned deployment humanitarian assistance missions, working with local ministries of health to bring care to the people of foreign nations. USNS Mercy's 2012 Pacific Partnership mission to Southeast Asia provided humanitarian assistance to thousands of men, woman and children in need. This is further evidence of our commitment to the global efforts to foster security and stability worldwide. Our hospital ships are executing our Maritime Strategy by building the trust and cooperation we need to strengthen our regional alliances and empower partners around the world. With each successful deployment, we increase our interoperability with host and partner nations, non-governmental organizations and the interagency.

### **Excellence in Research and Development**

Navy Medicine would not be able to accomplish its mission without a vibrant Research and Development (R&D) community. The work that our researchers do is having a direct impact on the treatment we are able to provide, from the battlefield to the bedside. Many wounded warriors are walking, talking, and leading productive lives today because of the research and medical advancements in wound management, wound repair and reconstruction, as well as extremity and internal hemorrhage control and phantom limb pain in amputees. Our R&D programs are truly force multipliers to Navy Medicine's success and enable us to remain agile in the world-class health care we provide to our service members and beneficiaries.

### **Priorities, Goals, and Looking to the Future**

Since becoming the Navy surgeon general in November 2011, Vice Adm. Nathan's focus remains in alignment with Navy and Marine Corps leadership as Navy Medicine supports the defense



Senior Chief Hospital Corpsman Charles Canterbury, left, conducts medical training for Sailors during a general quarters drill aboard the amphibious dock landing ship USS Fort McHenry (LSD 43). Fort McHenry, homeported in Little Creek, Va., was on a deployment in support of maritime security operations and theater security cooperation efforts in the U.S. 6th Fleet area of responsibility. (Photo by Mass Communication Specialist Seaman Erik Luebke)

strategic guidance. To ensure the fulfillment of its mission, he has outlined three strategic goals for the BUMED enterprise: readiness, value and jointness.

**Readiness:** Navy Medicine will provide agile, adaptable and scalable capabilities prepared to engage globally across the range of military operations within maritime and other domains in support of the National Defense Strategy. Navy Medicine must maintain a persistent state of high readiness so that its personnel are always ready to respond to needs to support everything from kinetic action to humanitarian assistance and disaster response missions. Readiness is the hallmark of Navy Medicine.

**Value:** Navy Medicine will provide exceptional value to those it serves by ensuring full and efficient utilization of its services, highest quality care through best health care practices and best use of resources.

**Jointness:** Navy Medicine will strive for jointness and improved interoper-

ability by pursuing the most effective ways of mission accomplishment. The synergy of creating efficiencies, removing redundancies and allowing transparency will elevate care and reduce costs.

In the upcoming years, Navy Medicine will focus on providing military health support for medical stability operations; maintaining health deployment readiness; and minimizing casualties in the deployed forces through prevention of disease and non-battle injuries. In addition, Navy Medicine provides expeditionary combat casualty care in support of requirements across the spectrum of joint military operations, ensuring that functional operating room and ICU beds are in place to meet warfighter requirements.

Regardless of the location -- in the air, on land, or above and below the seas -- the men and women of Navy Medicine will continue to do what they have always done -- provide world-class care ... anytime, anywhere.



# BUREAU OF MEDICINE AND SURGERY



Rear Adm. Michael Mittelman, deputy chief, U.S. Navy Bureau of Medicine and Surgery and deputy surgeon general of the U.S. Navy lead military and civilian staff outside of Bldg., 2 the Old Naval Observatory in Foggy Bottom, Washington D.C., for the last morning colors held at BUMED's headquarters prior to the "Change of Port" ceremony and move to the Defense Health Headquarters, in Falls Church, Va. (Photo by Janet Tela)

The Navy Bureau of Medicine and Surgery (BUMED) is the headquarters command for Navy Medicine. Under the leadership of Navy Surgeon General, Vice Adm. Matthew L. Nathan, Navy Medicine provides high-quality health care to beneficiaries in wartime and peacetime.

Highly trained Navy Medicine personnel deploy with Sailors and Marines worldwide – providing critical mission support aboard ship, in the air, under the sea and on the battlefield. At the same time, Navy Medicine's military and civilian health care professionals are providing care for uniformed services' family members and retirees at military treatment facilities around the globe. Every day, no matter what the environment, Navy Medicine is ready to care for those in need, providing world-class

care anytime, anywhere. BUMED is responsible for all medical support for the U.S. Marine Corps and the U.S. Navy.

BUMED is the site where the policies and direction for Navy Medicine are developed to ensure its patient and family-centered care vision is carried out. BUMED exercises direct control over naval hospitals, medical centers, dental clinics, preventive medicine units and technical schools for Medical Department personnel both inside the U.S. and around the world. BUMED also maintains command and control of its echelon III support commands and their subordinate commands that are not involved with direct patient care but important contributors to Navy and Marine Corps readiness, including the Navy Medicine Education and Training Command, Navy and Marine Corps

Public Health Center, Naval Medical Research Command, Naval Medical Logistics Command, Navy Medicine Information System Support Activity.

The BUMED headquarters has nine codes, or departments, that develop policy for a wide range of topics for our lower echelon commands to execute.

The nine codes are:

- M1: Manpower and Personnel—Total Force
- M2: Research and Development
- M3: Medical Operations
- M4: Installations and Logistics
- M5: Strategy and Innovation
- M6: Office of the Chief Information Officer
- M7: Education and Training
- M8: Comptroller and Resource Management
- M9: Wounded, Ill and Injured





Navy personnel at the new Falls Church, Va. location of the Navy Bureau of Medicine and Surgery (BUMED) participate in a uniform inspection. BUMED relocated to the location in June 2012. (Photo by Joshua Wick)

### A Brief History

BUMED was established as part of the Department of the Navy by an Act of Congress on Aug. 31, 1842. It is the centralized administrative organization of the Medical Department, located in Washington, D.C. As such, it is the guardian of health care for the Navy and U.S. Marine Corps. BUMED exercises direct control over naval hospitals, medical centers, dental clinics, preventive medicine units, and technical schools for Medical Department personnel both

inside the U.S. and around the world. BUMED is also responsible for the medical support of the Marine Corps.

BUMED, which was previously located on a tract of ground adjacent to the State Department on a hilltop in Foggy Bottom, D.C., moved to its new location at the Defense Health Headquarters (DHHQ) in June 2012 in Falls Church, Va., as part of the 2005 Base Realignment and Closure Commission. The command was located at its Foggy Bottom location for 170 years. The

DHHQ is also home to the Surgeons General from our sister services and the TRICARE Management Activity (TMA.)

Regardless of location, outstanding care for the sick and injured, international contributions to the sciences of medicine and dentistry, and personal sacrifices and valor of its personnel in peace and combat, have earned the Navy Medical Department a prominent place in the historical pages of the United States Navy.

### "A Hilltop in Foggy Bottom"

"A Hilltop in Foggy Bottom" served as the location for the U.S. Navy Bureau of Medicine and Surgery for 170 years until it was closed through the Department of Defense's Base Realignment and Closure (BRAC). This video is part one of a four part series that can be found on Youtube that documents the story of the historic location. (Video courtesy of the Office of Medical History, U.S. Navy Bureau of Medicine and Surgery)

Use your Smart Phone to view this video by downloading a QR Code reader and scanning the QR Code. The video can also be viewed at [http://www.youtube.com/watch?v=f0v7i\\_9od4I](http://www.youtube.com/watch?v=f0v7i_9od4I)





# NAVY MEDICINE EAST

Navy Medicine East (NME) is composed of 15 military treatment facilities and their many branch clinics. The region has more than 21,000 Sailors, government civilians, contractors and volunteers working across three continents.

NME is anchored by Naval Medical Center Portsmouth (NMCP), Va., a premier academic multi-specialty teaching hospital, and three Family Medicine teaching hospitals at Camp Lejeune, N.C., Jacksonville, Fla., and Pensacola, Fla. Each is among the finest programs in the country.

The region is headquartered on the NMCP campus.

In fiscal year 2012, Navy Medicine East and its commands totaled 21,387 active duty, reserve and civilian personnel; had 4,877,694 patient encounters and 347,864 enrolled beneficiaries; 397 individual augmentees deployed around the world.

In 2012, Navy Medicine East:

- Coordinated the efforts of key leaders to tackle a massive Physical Evaluation Board (PEB) backlog

at Naval Hospital Camp LeJeune.

The result was a program that DoD now uses to model the modified Integrated Disability Evaluation System (IDES) process. Improved care coordination for wounded led to the first comprehensive outpatient Traumatic Brain Injury (TBI) program in Navy Medicine and acquisition of \$4.7 million of new funding.

- Established key position at NME headquarters to oversee Wounded, Ill and Injured/TBI efforts for the region.
- Provided leadership in the development of the best corporate solutions for Navy Medicine in the planning, design and execution of over \$317 million in Medical Military Construction including a \$122.2 million Add/Alt project at Naval Hospital Camp LeJeune.
- Led Navy Medicine in Medical Homeport program implementation resulting in a 10 percent reduction of Emergency Department purchased care costs at

NME commands in 2012. NME led Navy Medicine among qualified Level III National Committee for Quality Assurance certifications.

## Naval Medical Center Portsmouth

Its nickname, "First and Finest," refers to Naval Medical Center Portsmouth's status as the Navy's first hospital and its excellent care to patients. Seven branch clinics and two TRICARE Prime Clinics support the 296-bed main hospital.

NMCP staff comprise 3,155 military, 1,848 civilians, 1,719 contractors, two reservists and 50 volunteers. There were 123 individual deployments during the year. More than 101,000 beneficiaries are enrolled to the medical center, and there were 1.3 million outpatient encounters during fiscal year 2012.

## Naval Hospital Beaufort, S.C.

Situated in South Carolina's idyllic lowcountry region, Naval Hospital Beaufort opened in 1949 and is a 20-bed community hospital that provides general medical, surgical and emergency services to 29,000 active duty personnel, retirees, and eligible family members residing in the Beaufort area. NHB is the parent command for two Branch Health Clinics located at MCAS Beaufort and MCRD Parris Island, which processes and trains all incoming recruits for the Marine Corps' Eastern Recruiting Region.

With a staff of 554 active duty and 237 civil service personnel, NHB managed 102,034 patient encounters at the hospital, 26,918 at MCAS, and 165,493 at MCRD Parris Island last year.

## Naval Hospital Camp Lejeune

Naval Hospital Camp Lejeune, (NHCL) N.C., provides general clinical and hospitalization services for approximately 118,000 beneficiaries, including active duty service members, retirees and family members. Nearly 2,000 active duty sailors, civilians, contractors and volunteers support the hospital and its six branch medical clinics. They support an average of 20 sailors deployed around the world each month.

An average day includes: 1,569 outpatient visits; seven surgical cases;



Members of the Tactical Combat Casualty Care course at Naval Medical Center Portsmouth practice transporting patients during the Care Under Fire phase of their training. (Photo by Abbigail Hancock)



six ambulatory procedures; five births; 12 inpatient admissions; an inpatient census of 29; 127 emergency department visits; 415 radiology exams; 2,852 laboratory tests; and, 2,293 pharmacy scripts. In addition to the hospital's primary care services provided by the Family Medicine, Pediatrics and Internal Medicine clinic and the branch clinics, the hospital offers many specialty health care and alternative health care services. Our medical staff averages approximately 340,000 patient appointments annually.

### **Captain James A. Lovell Federal Health Care Center**

In 2010, the Captain James A. Lovell Federal Health Care Center (FHCC), located in Chicago, became the nation's first fully integrated VA and DoD medical facility. As a five-year DoD/VA Medical Facility Demonstration Project, the FHCC is implementing an electronic medical record system that provides seamless care as active duty Sailors make the transition to veteran status.

The FHCC has 88 hospital beds, 124 nursing home care beds, 125 domiciliary beds, 18 Mental Health Psychosocial Residential Rehabilitation Treatment Program beds and four observation beds.

Lovell FHCC is part of the Veterans Integrated Service Network 12 and the Military Health System under the Department of the Navy's Bureau of Medicine and Surgery and Navy Medicine East. It covers a 16-state regional area for active duty and reservists while providing comprehensive medical care for DoD beneficiaries living near North Chicago who use the FHCC.

### **Naval Health Clinic Charleston**

Naval Health Clinic Charleston (NHCC), S.C. has occupied the new John G. Feder Joint Ambulatory Care Clinic for two years. After overcoming nearly all of the expected obstacles of moving to a new building at a new location, NHCC is operating at a level rarely seen by health care organizations.

The clinic provided primary, specialty, ancillary and occupational health services during 112,588 patient encounters for 16,309 enrolled beneficiaries in fiscal year 2012. Specialty care services

**Lt. Cmdr. Nathan Kindig, a Naval Air Technical Training Center physical therapist, performs exercises with a student, Hospital Apprentice Phillip Johnson, to improve function and mobility after an injury to the knee.**  
(Photo by Stan Jones)



at the clinic include general surgery, podiatry, physical therapy, chiropractic care, optometry and otolaryngology.

The 407-member NHCC staff is composed of 208 active duty, 154 civilian and 45 contract employees. Additionally, there is a contingent of more than 40 people who volunteer at the clinic.

### **Naval Health Clinic Cherry Point**

Naval Health Clinic Cherry Point, N.C., named after Medal of Honor recipient PhM2c William David Halyburton, is located on board Marine Corps Air Station Cherry Point. The clinic provides high quality medical care to more than 33,000 active duty, retired and other eligible beneficiaries from MCAS Cherry Point, 2d Marine Aircraft Wing and Fleet Readiness Center East, the largest industrial readiness center on the East coast.

The clinic employs 410 active duty, civil service and contractor personnel. During a typical month, the staff performs 22,000 prescription fills, 18,000 laboratory studies, 8,381 outpatient medical appointments, 2,622 radiological studies and 60 ambulatory surgical procedures.

## **Navy Medicine East by the Numbers**

**4.8million**  
Annual patient encounters

**347,864**  
Enrolled Beneficiaries

**21,387**  
Active Duty, Reserve and Civilian personnel

**397**  
Individual deployments



**Lt. Alicia Warnock discusses her plan of care on her patient, Sherry Schumaker, in NHP's internal medicine clinic. The internal medicine clinic is a part of Medical Home Port and is composed of two teams who see over 5,000 patients. (Photo by Stan Jones)**

### **Naval Health Clinic Corpus Christi**

Naval Health Clinic Corpus Christi, Texas and its branch health clinics (NAS Kingsville and JRB Fort Worth) provide ambulatory care services to 12,837 enrolled military beneficiaries. The command's detachment in San Antonio provides primary care services to our Navy students at the Medical Education and Training Command at Fort Sam Houston, and case management services and medical board management to our Navy and Marine Corps wounded warriors at Brook Army Medical Center. The command is staffed with 486 military, civilian contractors and civil service personnel. The command deploys an average of 24 staff members to meet the needs of our deployed warriors and humanitarian missions.

During a typical day, there are 353 medical visits, 69 dental visits, 1,205 prescriptions filled, 26 radiology exams conducted and 458 laboratory tests.

### **NHCCC San Antonio Detachment**

Naval Health Clinic Corpus Christi Detachment (NHCCC) San Antonio is focused on expanding support to the

Navy and Marine Wounded, Ill and Injured (WII) at San Antonio Military Center, including consolidating Navy assets onsite under one directorate, the Director of Branch Clinics. Office space was acquired to allow Navy personnel to consolidate in one central location, allowing for better access and support of Navy and Marine WII. Additionally, five new contract positions were created and a Manning Change Request was generated to allow for the shift of billets from NHCCC to San Antonio to better support mission requirements.

### **Naval Hospital Jacksonville**

Naval Hospital Jacksonville, Fla. is composed of a hospital and five branch health clinics in Florida (Jacksonville, Key West, Mayport) and Georgia (Albany, Kings Bay). The 2,750 active, reserve and civilian staff serves 57,000 enrolled patients and 215,000 beneficiaries.

As the fourth largest medical command, NH Jacksonville provides the entire continuum of care: primary care through 14 Medical Homeport teams, surgery, maternity, wellness, deployment health, dive and aviation medicine,

pharmacy, laboratory, radiology and other specialties. Each year, NH Jacksonville cares for 500,000 outpatients, sees 82,000 dental patients, admits 4,100 inpatients, treats 32,000 in the ER, performs 3,900 same-day surgeries, fills 1,300,000 prescriptions, conducts 1,250,000 lab tests and delivers 900 babies – as one of only three DoD MTFs certified as Baby Friendly by WHO/ UNICEF.

### **Naval Health Clinic New England**

Naval Health Clinic New England comprises command headquarters in Newport, R.I., and three branch health clinics in Groton, Conn.; Portsmouth, N.H.; and Saratoga Springs, N.Y.

Newport provides care for 35 tenant commands on Naval Station Newport such as the Naval War College, Officer Training Command, Naval Academy Prep School, Naval Undersea Warfare Center, Navy Supply School and Surface Warfare Officers School. BHC Groton provides care to 70 tenant commands at Naval Submarine Base, New London, Conn., which is homeport to 18 submarines, and BHC Portsmouth is located at the Portsmouth Naval Shipyard where the primary mission is the overhaul of Los Angeles and Virginia Class submarines. They are also the engineering center for new submarines. BHC Saratoga Springs supports the medical and dental needs of the Naval Nuclear Power Training Unit in Ballston Spa, N.Y.

### **Naval Hospital Pensacola**

Naval Hospital Pensacola, established in 1826, is one of the oldest naval medical facilities. It is a community-sized teaching hospital composed of 34 beds with 10 branch health clinics spanning five states: Florida, Indiana, Louisiana, Mississippi and Tennessee. NH Pensacola services over 154,000 beneficiaries and staffs over 2,100 military and civilian personnel. We are a fully deployable unit of more than 1,100 personnel who could be called upon to support operational and humanitarian missions worldwide.

NHP has successfully implemented Medical Home Port in all of its primary care clinics resulting in reduced ER utilization for non-urgent needs, improved





**A hospital corpsman attached to Naval Hospital Beaufort's Branch Health Clinic (BHC) Marine Corps Recruit Depot (MCRD) Parris Island draws blood on a recruit newly arrived to MCRD for basic training.** (Photo by Marine Corps Lance Cpl. Octavia Davis)

health outcomes, increased continuity of care, and soaring patient satisfaction. NHP continues to evolve the Medical Home Port concept through secure messaging and improved access to the health care team. NHP has earned seven Level 3 accreditations, the highest recognition possible from the National Committee for Quality Assurance, the most in all of the Department of Defense.

### **U.S. Naval Hospital Guantanamo Bay**

The staff at U.S. Naval Hospital Guantanamo Bay have the reputation for sustaining one of the highest patient satisfaction rates providing the highest quality health care to the more than 5,500 base residents on Guantanamo Bay. The hospital provides care to everyone living on the installation, including active duty, government civilian employees, contractors, special category residents, foreign nationals, visitors, migrants, detainees, and all family members. This also includes Joint Task Force Guantanamo personnel charged with the Operation Enduring Freedom detainee mission, and Coast Guard personnel who carry out the interdiction

mission in the Caribbean region.

### **U.S. Naval Hospital Naples**

U.S. Naval Hospital Naples comprises the main hospital in Gricignano, Branch Clinic Capodichino and a detachment at Landstuhl, Germany. The naval hospital's staff totals 400 active duty; and 183 civilians, contractors and local nationals, who serve more than 8,000 beneficiaries. The hospital has 20 inpatient beds (expandable to 40) and had 521 admissions and 56,776 ambulatory visits.

A unique aspect of USNH Naples is how the command collaborates with the local medical community within the Preferred Provider Network. The PPN is composed of medical specialists in the local economy, with whom we coordinate care for our beneficiaries. The PPN is used only when we cannot provide a specialty service and every effort to care for the patient within has been exhausted. The PPN has created a lasting partnership with the local Italian medical community, and has strengthened medical diplomacy throughout the region.

### **U.S. Naval Hospital Rota**

U.S. Naval Hospital Rota, Spain has 2,746 enrolled beneficiaries, and an average of 40,920 annual patient encounters. There are 317 active duty, 83 civilian (U.S. & local national) and 15 contract personnel. In fiscal year 2012, there were 14 individual deployments.

Specialty care services include General Surgery, Obstetrics & Gynecology, Dermatology, Urology, Pediatrics, Orthopedics, Optometry, Oral Surgery and Endodontics.

### **U.S. Naval Hospital Sigonella**

U.S. Naval Hospital Sigonella, Italy is a 22-bed community hospital with one satellite clinic in Sicily and two branch health clinics located in the Kingdom of Bahrain and on the island of Crete that support approximately 8,500 personnel assigned to NAS Sigonella, NSA Souda Bay and NSA Bahrain including headquarters staff of U.S. Naval Forces Central Command, as well as ships transiting the FIFTH and SIXTH Fleets areas of operations.

The hospital is a medevac receiving and staging area for the eastern Mediterranean Sea and the Middle East. Beneficiaries include active duty, active duty family members, retirees and their eligible family members, as well as support elements including DoD civilians, contractors and their families.

### **Naval Dental Center Camp Lejeune/2d Dental Battalion**

Naval Dental Center Camp Lejeune/2d Dental Battalion is composed of five branch dental clinics and six annex clinics located onboard Marine Corps Base Camp Lejeune, Marine Corps Air Station Cherry Point, and Marine Corps Air Station New River. There are also six state-of-the-art mobile dental units. The command's staff consists of 270 active duty and 215 civil service and contract personnel who provide a wide range of General Dentistry Services, as well as Prosthodontics, Periodontics, Endodontics and Oral Surgery Specialty care to an active duty patient population of 52,248.

During fiscal year 2012, the Naval Dental Center had 178,858 patient encounters and delivered dental care valued in excess of \$56.4 million.

# NAVY MEDICINE WEST

## Navy Medicine West

Navy Medicine West's (NMW) mission is to lead a functionally integrated regional health system known for its readiness, responsiveness, and reliability. NMW provides oversight and program guidance for integrated health care delivery, medical treatment facility (MTF) performance, human resource strategy, system optimization and innovation, contingency response and future strategies and growth. NMW is comprised of 12 commands (10 MTF accredited by the Joint Commission and two Naval Dental Clinics).

NMW is staffed by 16,900 active-duty enlisted Sailors and officers, Navy civilians, Reserve component and contract personnel who provide outstanding health services to more than 768,000 patients with approximately 3.8 million patient encounters each year.

In 2012, NMW deployed 953 personnel in support of various missions and training exercises enterprise wide, to include individual augmentee requirements, Pacific Partnership 2012 (nearly 500 NMW embarked), EMF Kandahar, two afloat surgical team rotations Operation Enduring Freedom, 1st and 2nd Medical Battalions, and augmented various ships to include aircraft carriers USS Stennis, USS Nimitz and USS Lincoln.

## Naval Medical Center San Diego

Naval Medical Center San Diego's (NMCSD) mission is to deliver top-quality and patient-centered health care, to prepare and deploy military personnel in support of Combatant Commander requirements and to shape the future of military medicine through education, training, and research.

NMCSD is a 277-bed multispecialty hospital and ambulatory complex adjacent to San Diego's historic Balboa Park, with a staff comprised of more than 6,500 personnel. The hospital and its branch health clinics treat more than 95,000 enrolled beneficiaries from Miramar to El Centro, Calif. With its vision of being the nation's premier military

medical center and providing world class care anytime, anywhere, NMCSD is the amputee center of excellence for the Western Pacific caring for Marines assigned to Wounded Warrior Battalion West, Soldiers assigned to Warrior Transition Unit, and Sailors in medical transition. NMCSD has achieved national acclaim for many of its clinical and research programs including refractive surgery, post-traumatic stress, and hearing and balance disorders. NMCSD personnel routinely deploy as individual

augmentees, in support of humanitarian missions afloat and ashore, and in support of the missions of overseas medical facilities in various areas of combat operations. In 2012, 329 staff deployed in support of Pacific Partnership, Djibouti and Afghanistan.

## Naval Hospital Bremerton

Naval Hospital Bremerton (NHB) is a community-based acute care and obstetrical hospital, offering expert primary care, emergency care and a broad range of medical and surgical specialties to more than 24,000 enrolled beneficiaries. NHB is parent command for three branch health clinics located at Puget Sound Naval Shipyard, Naval



Marine Sgt. Lam Le, assigned to Naval Medical Center San Diego's (NMCSD) Wounded Warrior Battalion-West detachment, performs step exercises during NMCSD's Comprehensive Combat and Complex Casualty Care (C5) program agility clinic. The clinic is part of a weeklong schedule of events commemorating C5's five years of rehabilitating WII service members. (Photo by Mass Communication Specialist 2nd Class Sean P. Lenahan)





Ensign Gina Denjen explains the steps needed to stabilize a patient to instructor Sherwood Cox during the first Navy Advanced Trauma Nursing Facilitator Course (ATNC) held at Naval Medical Center San Diego. ATNC is a two day course that combines lectures, practical experience and helps nurses expand their management and team skills while treating a patient with multiple traumas. NMCSO plans on implementing the course as a pre-deployment requirement for nurses and will expand on the existing Advanced Trauma Life Support Provider Course which is a required course for primary care physicians before deploying. (Photo by Mass Communication Specialist 1st Class Anastasia Puscian)

Base Kitsap Bangor and Naval Station Everett and the Puget Sound Family Medicine Residency Program. NHB and its clinic staff consist of more than 1,400 military, civilian, contract and volunteer personnel. In fiscal year 2012, NHB had approximately 119 active-duty staff deployed in support of operations in Afghanistan, Kuwait and other commands such as Joint Task Force-Horn of Africa, Black Sea Rotational Force, and with Pacific Partnership 2012.

#### Naval Hospital Lemoore

Naval Hospital Lemoore (NHL) is a 16-bed community hospital located

onboard Naval Air Station (NAS) Lemoore approximately seven miles west of Lemoore, Calif., in the central San Joaquin Valley. Under the NHL command umbrella are two branch health clinics: Naval Branch Health Clinic (NBHC) in Fallon, Nev., and Branch Dental Clinic (BDC) in Monterey, Calif., as well as Naval Medical Administration Unit (NMAU) also in Monterey, Calif.

#### Naval Hospital Yokosuka

Naval Hospital Yokosuka (NHY) is the largest U.S. military treatment facility on mainland Japan: a 47-bed core

### Navy Medicine West by the Numbers

**3.8million**  
Annual patient encounters

**768,000**  
Patients

**16,900**  
Active Duty, Reserve and  
Civilian personnel

**953**  
Individual deployments



**Naval Medical Center San Diego Neonatal Intensive Care Unit nurse Lt. j. g. Linda Duque checks on newborn. More than 1,000 active duty and civilian nurses provide patient care throughout NMCS. (Photo by Mass Communication Specialist 2nd Class John O'Neill Herrera)**

hospital in Yokosuka, near Tokyo. Branch health clinics are located in Sasebo, Iwakuni, Atsugi, Camp Fuji, and Yokohama in mainland Japan; Chinhae, Korea on the southern tip of South Korea; and Diego Garcia in the Indian Ocean. NHY serves 42,000 beneficiaries throughout the western Pacific and provides quality patient and family-centered healthcare by empowering staff, using efficient business practices and partnering with other Navy, Army, Air Force and host nation hospitals and clinics.

### **Naval Hospital Guam**

Naval Hospital Guam (NHG), a 38-bed community hospital with full-scope primary care, emergency services and limited specialty services, is comprised of the main hospital in Agana Heights and two branch clinics, medical and dental, on Naval Base Guam. NHG's staff of 557 active duty and 189 civilians and contractors serve more than 11,657 enrolled ben-

eficiaries. NHG offers full-scope primary care, Emergency Department care, and limited specialty services.

### **Naval Hospital Okinawa**

Naval Hospital Okinawa (NHO) is the largest overseas MTF in the Navy. Located on Camp Lester in the town of Chatan, Okinawa, the 82-bed facility is staffed by active duty personnel from all branches of service, U.S. and Japanese civilians, and American Red Cross volunteers. The hospital serves a beneficiary population of 55,000 active duty personnel, family members, civilian employees, contract personnel, and retirees living in Okinawa. NHO also provides specialty care and referral services for more than 189,000 enrolled beneficiaries throughout the Western Pacific area of operation, including garrison forces, family members, and operating forces deployed to the region. NHO operates branch medical clinics on Camp Kinser, MCAS Futenma, Camp

Foster, Camp Courtney, Camp Hansen, and Camp Schwab.

### **3d Dental Battalion U.S. Naval Dental Center Okinawa**

3d Dental Battalion U.S. Naval Dental Center (3D DENBN/USNDC) Okinawa, Japan is the Navy's largest OCONUS dental command providing care to a patient population of 48,900 in eleven different specialties; comprehensive dentistry, endodontics, exodontics, general dentistry, dental hygiene, operative dentistry, oral surgery, orthodontics, pedodontics, periodontics and prosthodontics. 3D DENBN/USNDC Okinawa consists of 391 personnel assigned to a headquarters and 13 dental facilities; 10 of which are located on Okinawa, one in Iwakuni, Japan and two in Kaneohe Bay, Hawaii. Its mission is to "ensure dental readiness and optimize dental health for all beneficiaries and support operation and expeditionary missions."





**Hospital Corpsman Apprentice Justin Ross checks seven year-old Gionni Rameriez's temperature in Naval Medical Center San Diego's pediatric inpatient ward. The pediatric ward provides comprehensive medical and surgical care with staff focus on family-centered, multidisciplinary care and treatment. (Photo by Mass Communication Specialist 1st Class Anastasia Puscian)**

### Naval Hospital Camp Pendleton

Naval Hospital Camp Pendleton (NHCP), a 72-bed facility, provides outpatient and inpatient care for active duty and retired personnel and family members. Services available include internal medicine, family medicine, pediatrics, otolaryngology, cardiology, pulmonology, audiology, urology, optometry, ophthalmology, gynecology, gastroenterology, allergy, obstetrics, dermatology, orthopedics, sports medicine, mental health, general surgery, nuclear medicine, emergency ambulance, and emergency room.

### Naval Hospital Oak Harbor

Naval Hospital Oak Harbor (NHOH) is a 12-bed hospital located on Naval Air Station, Whidbey Island, Wash. It is one of three rural community hospitals within a 40-mile radius. The hospital is a TRICARE Prime facility that serves active duty and family members, as well as eligible retired military personnel and their families. Services provided included dental care, urgent care, family medicine, general surgery, internal medicine, labor and delivery, laboratory, pharmacy, radiology, mental health, obstetrics and gynecology,

occupational health, flight medicine, deployment health, optometry, orthopedics, pediatrics, same-day surgery, physical therapy, preventive medicine, and a Substance Abuse and Rehabilitation Program.

### Naval Hospital Twentynine Palms

Naval Hospital Twentynine Palms (NHTP) was surveyed by the Joint Commission in January 2012 that resulted in a 3-year accreditation. The hospital also underwent the Navy Bureau of Medicine and Surgery's Inspector General Survey at the same time. NHTP listens to suggestions of patients in order to provide high quality and convenient care. In fiscal year 2012, the hospital established a mental health pain management group. Additionally, its Multi-Service Ward restarted the infusion center for referred patients. This service allows patients to receive intravenous infusions and therapeutic injections in a safe, professional, and comfortable environment. NHTP provides exceptional healthcare to eligible beneficiaries working and living in the Combat Center, the Naval Air Weapons Station China Lake, and the Marine Mountain Warfare Center Bridgeport, Calif.

### Naval Health Clinic Hawaii

The Naval Health Clinic Hawaii (NHCH) team is committed to operational readiness and accessible, coordinated, compassionate and patient-centered care. Outpatient care includes aviation medicine, behavioral health, chiropractic, dental, deployment health, dermatology, family medicine, hearing conservation, industrial hygiene, obstetrics and gynecology, occupational medicine, optometry, orthopedics, physical therapy, preventive medicine, Sports Medicine and Rehabilitation Therapy Center, Substance Abuse and Rehabilitation Program and undersea medicine. In fiscal year 2012, NHCH received the Blue H Navy Surgeon General's Health Promotion and Wellness Award (12th consecutive); conducted first CNO-directed Navy Influenza Vaccination Exercise in 2012 immunizing active duty military and eligible DoD population achieving 78% compliance (8% over established goal); was accredited by The Joint Commission and College of American Pathologists; and improved access to care with a renovated Behavioral Health building.



# NAVY MEDICINE NATIONAL CAPITAL AREA

## **Navy Medicine National Capital Area**

Navy Medicine National Capital Area (NCA) is comprised of the main medical center, Walter Reed National Military Medical Center (WRNMMC), Bethesda, Md., the NCA health clinics: Naval Health Clinic Annapolis, Md., Naval Health Clinic Patuxent River, Md., Naval Health Clinic Quantico, Va., and their branch clinics.

## **Walter Reed National Military Medical Center**

Walter Reed National Military Medical Center, Bethesda, Md., is the world's largest military hospital, located on the Naval Support Activity-Bethesda 243 acre campus, the Medical Center

has more than 2.4 million square feet of clinical space, provides outpatient care and services to nearly 1 million beneficiaries per year in addition to inpatient care and services. Walter Reed Bethesda, the flagship of military medicine, also known as the President's hospital, represents hope to those who enter its doors. As the construction and renovation was completed to create the Walter Reed National Military Medical Center, all quality of care, patient and staff satisfaction, and patient safety metrics were maintain at or above national bench marks. Our Patient and Family Centered Medical Home care model allows patients to take charge of their health. We provide 24/7 support, guidance, care, and counseling to

our wounded warriors and their family members. Our philosophy is to lift them up and support them from the minute they arrive at Walter Reed Bethesda so that they feel as if their feet never hit the ground. As important as the brick and mortar of these buildings is, it pales in comparison to the importance of the care and compassion delivered by our staff within them.

## **Statistics**

- 2.4 Million Square Feet
- 345 Total Beds
- 9,837 Total Admissions Less Births (2012)
- 1,133 Total Births (2012)
- 225 Average Daily Census (2012)
- 5.2 Average Length of Stay (2012)
- 19,028 Total Emergency Department Visits (2012)
- 6,904 Total Staff Members (including 2,531 Civilian, 1,304 Contractor, 1,315 Enlisted, 1,713 Officer, 41 Reserve)



Enlisted personnel from the Navy and Army work together at Walter Reed National Military Medical Center to provide world-class care for patients and their families. (Photo courtesy of Walter Reed National Military Medical Center Public Affairs)





**Walter Reed National Military Medical Center, Bethesda, Md. is the world's largest military hospital, located on the Naval Support Activity-Bethesda 243 acre campus.** (Photo courtesy of Walter Reed National Military Medical Center Public Affairs)

### **Our Vision**

- We are the Nation's Medical Center.
- We create extraordinary experiences for patients, families, and staff, while driving tomorrow's healthcare advances.
- We provide the nation's best warrior care.
- We value our patients and staff.
- We maximize readiness and promote wellness for our Uniformed Services
- We provide quality Patient and Family-Centered care
- We develop and export innovation in healthcare
- We lead the way in integration for the National Capital Area health-care system
- We provide robust education and

professional development programs

- We serve as a resource for homeland defense and humanitarian assistance
- We care for the President and the Nation's leaders

WRNMMC's primary mission is to ensure the readiness and care of the Uniformed Services and their families. Walter Reed Bethesda leads military medicine through outstanding patient-centered care, innovation, and excellence in education and research. We provide comprehensive care to prevent disease, restore health, and maximize readiness. We are: Accountable to our Patients and Staff, Preferred for our Performance, and Admired for our Service. WRNMMC also provides care for the President and Vice-President of the

United States, Members of Congress, and Justices of the Supreme Court. In addition, when authorized, WRNMMC provides care for foreign military and embassy personnel.

### **Deploying to Support Missions**

WRNMMC staff members provide care around the world via hospital ship USNS Comfort (T-AH 20) and several other operational platforms. In 2003, nearly 800 NNMC staff deployed aboard USNS Comfort (T-AH 20) to support Operation Iraqi Freedom. In 2005, more than 500 NNMC staff members deployed on a six-week mission aboard USNS Comfort (T-AH 20) to support Hurricane Katrina Relief efforts in the Gulf. At any given time, dozens of NNMC staff are deployed around the globe to places like Iraq, Afghanistan, and Kuwait to support the Global War on Terrorism. In 2011,



**Walter Reed National Military Medical Center provides a number of services and procedures to help correct hearing loss, often experienced by troops returning from combat.** (Photo courtesy of Walter Reed National Military Medical Center Public Affairs)

323 WRNMMC staff deployed aboard USNS Comfort (T-AH 20) to support Operation Continuing Promise.

### **Leadership**

WRNMMC is an active status facility with an active duty command leadership.

WRNMMC receives resources and technical support from Navy Medicine NCA and is under operational and tactical control of the Joint Task Force National Capital Region Medical.

### **Patient Services**

- 3-D Medical Applications
- Addiction Treatment Services
- Adolescent Medicine
- Allergy/Immunology/Immunization
- Ambulatory Procedure Unit
- Ambulatory Surgery Center
- Anatomic Pathology Labs
- Anesthesia
- Armed Forces Center for Child Protection (AFCCP)
- Armed Services Blood Bank Center
- Assistive Reproductive Technologies
- Audiology and Speech Pathology Center
- Behavioral Health Care
- Breast Care Center/Mammography
- Cardiac Rehabilitation
- Cardiovascular Health and Interventional Radiology Center (CVHIR)
- Cardiology
- Cardiothoracic Surgery
- Child and Adolescent Behavioral Health Services
- Chiropractic Services
- Clinical Case Management
- Clinical Nutrition Services
- Colon Health/Virtual Colonoscopy
- Comprehensive Cancer Center
- Comprehensive Dentistry – Naval Postgraduate Dental School
- Defense and Veterans Brain Injury Center (DVBIC)
- Dental Readiness and Primary Care Dentistry
- Deployment Health Center
- Dermatology
- Dialysis Center/Nephrology
- Diabetes Care Center/Endocrinology
- Ear, Nose and Throat/Otolaryngology
- Emergency Medicine Endodontic – Naval Postgraduate Dental School
- Exceptional Family Member Program
- Executive Medicine
- Gastroenterology
- General Surgery
- Gynecological Cancer Center of Excellence
- Health Promotion and Physical Fitness Assessment (PFA)
- Health Readiness
- Hearing Conservation/Occupational Audiology
- Hematology / Oncology
- Hospital Dentistry
- Infectious Diseases
- Intensive/Critical Care Internal Medicine Interventional Radiology
- Immunizations
- Industrial Hygiene
- Infection Prevention & Control Services



- Inpatient Medicine
- Laboratory Services
- Mother Infant Care Center (MICC)
- Medical Home
- Medical & Reproductive Genetics
- Military Advanced Training Center (MATC)/Amputee Center
- Military Medical Records
- Naval Post-Graduate Dental School
- Neonatal Intensive Care Unit (NICU)
- Nephrology
- Neurology
- Neurosurgery
- Nuclear Medicine
- Nutrition Management
- Obstetrics/Women's Health
- Occupational Medicine
- Occupational Safety
- Occupational Therapy
- Oncology
- Operating Room
- Ophthalmology (Eye Clinic)
- Optometry
- Oral and Maxillofacial Pathology – Naval Postgraduate Dental School
- Oral and Maxillofacial Surgery
- Oral Medicine/Radiology
- Orofacial Pain – Naval Postgraduate Dental School
- Orthodontics
- Orthopaedics/Podiatry
- Orthotics/Prosthetics
- Otolaryngology Surgery (ENT)
- Pain Management
- Pediatric Medicine
- Pediatrics Neurodevelopmental Division
- Periodontics – Naval Postgraduate Dental School
- Prosthodontics and Maxillofacial Prosthetics – Naval Postgraduate Dental School
- Pharmacy
- Physical Medicine & Rehabilitation
- Physical Therapy
- Podiatry
- Plastic & Reconstructive Services (Pediatric & Adult)
- Post Anesthesia Care Unit (PACU)
- Preventive Medicine & Environmental Health Services
- Prostate Disease Research
- Psychological Health and
- Traumatic Brain Injury (PH-TBI)
- Pulmonary Medicine
- Radiation Oncology



**Open Sports Day is held at Walter Reed National Military Medical Center twice a year, allowing wounded warriors an opportunity to learn about the many recreational activities available at the medical center and throughout the community. (Photo courtesy of Walter Reed National Military Medical Center Public Affairs)**

- Refractive Surgery
- Reproductive Health
- Rheumatology
- Sleep Lab
- Social Work/Clinical Care Management Speech Language Pathology
- Sterile Processing
- Substance Abuse
- Surgical Oncology
- Transfusion Services
- Urogynecology
- Urology
- Vaccine Healthcare
- Vascular Surgery
- Vision Center of Excellence (VCoE)

#### **NCA Branch health clinics:**

Carderock, Dahlgren, Earle, Indian Head, Lakehurst, Mechanicsburg, NAD Washington, Naval Research Lab, Philadelphia Business Center, Sugar Grove, USUSHS, Washington Navy Yard and Willow Grove.

#### **Annapolis**

Outpatient Visits 116, 420  
Lab Test 74,811  
Dental Visits 83,544  
Prescriptions Filled 122,829

#### **Patuxent River**

Outpatient Visits 113,564  
Lab Test 78,447  
Dental Visits 59,183  
Prescriptions Filled 96,598

#### **Quantico**

Outpatient Visits 193,703  
Lab Test 163,811  
Dental Visits 162,342  
Prescriptions Filled 134,889

#### **NCA Totals:**

Outpatient Visits 423,687  
Lab Test 317,069  
Dental Visits 305,069  
Prescriptions Filled 354,316



# NAVY MEDICINE EDUCATION AND TRAINING COMMAND

## **Navy Medicine Education and Training Command**

Navy Medicine Education and Training Command (NMETC) was renamed and re-scoped from the Navy Medicine Education and Training Command (NMETC) during a ceremony at Naval Air Station Jacksonville, Fla, July 11, 2012. The new NMETC is focused on the education and training mission and functionally aligned to BUMED M7.

The new NMETC command headquarters is located on board historical Fort Sam Houston in San Antonio, Texas, the hub of military medical edu-

cation and training. NMETC directly supports the Navy Surgeon General's priorities of readiness, value and jointness through its 21 commands, activities and detachments located across the United States. The command manages and executes medical and operational training for Navy, joint and allied military personnel.

Examples of NMETC readiness, value and jointness include managing Navy Medicine's Modeling/Simulation standardized training scenarios and equipment purchase, helping ensure Navy Medicine personnel have the

tools to meet their mission of providing healthcare and maintaining a healthy and fit force. NMETC develops training content delivered globally via MTF Staff Education and Training or Navy eLearning. NMETC directly supports readiness, Joint Commission accreditation, and deployed platforms by monitoring internal metrics specific to the Navy Medicine Education and Training enterprise, and external measures that monitor compliance with education and training standards for Navy Medicine staff. NMETC Academics maintains oversight of curricula at Navy Medicine



(Left) Logistics Specialist 2nd Class (EXW/SW/PJ) Robert Colson, a San Diego native, and Hospital Corpsman 1st Class (SW) Cedric Gaines, a Tifton, Ga., native, transport a patient during the Tactical Combat Casualty Care (TCCC) portion of the inaugural Kandahar Role 3 Operational Medical Training Program. The Kandahar Role 3 Operational Medical Training Program is designed to provide necessary current professional skills training before the nearly 200 service members participating in the course deploy to Kandahar's Role 3 Hospital. (Photo courtesy of Navy Medicine Education and Training Command)



Learning Centers and the tri-service Medical Education and Training Campus (METC), which provides education and training programs for Navy, Army and Air Force medical personnel.

#### **NMETC Reserve Unit**

NMETC Reserve Unit (NR-NMETC) is a 70-person unit drilling in Jacksonville and supporting reserve component training globally. NR-NMETC is transitioning from a rapid response unit to a unit that is responsible for coordinating and integrating the training plan for Navy Medicine Reserve Component. NR-NMETC has participated in exercises such as Tropic Care in Hawaii, Arctic Care in Alaska, and Alabama Black Belt in Selma, Demopolis and Hayneville, Ala. These joint-service exercises provided readiness training for Navy, Army and Air Force medical personnel who in turn supported the underserved local population with medical and dental care.

#### **Subordinate Echelon-4 Commands**

NMETC has three subordinate echelon-4 commands – Navy Medicine Operational Training Center (NMOTC) in Pensacola, Fla.; Navy Medicine Training Support Center (NMTSC) at Fort Sam Houston; and Navy Medicine Professional Development Center (NMPDC) at Bethesda, Md.

#### **Navy Medicine Operational Training Center**

Navy Medicine Operational Training Center (NMOTC) is a CNO-Designated Warfare Center of Excellence that provides readiness, value and jointness by training approximately 24,000 line Navy and Marine Corps personnel, and over 300 international students annually. NMOTC also performs 43,000 aeromedical dispositions, 9,000 ASTBs (psychological testing), and up to 500 evaluations annually for Navy, Marine Corps, Army and Air Force repatriated POWs.

NMOTC has oversight of six detachments and nine training centers in 46 facilities spread across the U.S. More than 600 personnel support some 65 instructional programs within aviation,



Naval Aerospace Medical Institute flight surgeon Lt. Cmdr. Charles Johnson, center, provides student flight surgeons Lt. Jennifer Hunt, left, and Lt. John Jackson feedback during an Advanced Cardiovascular Life Support block of instruction at NAMI in Pensacola, Fla. The ACLS is an American Heart Association-credentialed course which Navy Medicine deployers are required to take. (Photo by Mass Communications Specialist 1st Class Bruce Cummins)

surface and undersea warfare, expeditionary forces, and special operations.

#### **Navy Medicine Training Support Center**

Navy Medicine Training Support Center (NMTSC) is Navy's component command to the tri-service METC. NMTSC provides administrative and operational control of over 580 Navy Medicine instructors and support staff, and 2,500 students assigned to the METC and San Antonio-area medical education programs. Approximately 5,000 Corpsmen representing about 20% of today's Navy active duty Corpsmen are graduates of the consolidated Navy and Air Force Basic Medical Technician Corpsman Program (BMTCP) at METC.

#### **Navy Medicine Professional Development Center**

Navy Medicine Professional Develop-

ment Center (NMPDC) supports Sailors and Marines by educating, training and supporting Navy Medicine personnel to optimize the health and readiness of the Warfighter. NMPDC manages Navy Medicine's graduate professional educational programs, dental residency and fellowship programs, postgraduate education programs, officer corps graduate programs and continuing education, officer commissioning programs for MSC and NC, board certification and maintenance reimbursement, scholarly research, and leadership and professional development courses. NMPDC actions that directly impact Navy Medicine's readiness, value and jointness priorities include maintaining collaborative relationships with more than 100 military and civilian activities, and training approximately 3,000 personnel from the federal uniformed services, civilian employees, and allied foreign military members annually.

# NAVAL MEDICAL LOGISTICS COMMAND

Naval Medical Logistics Command (NMLC) is the center of logistics expertise for Navy Medicine and naval operational forces designing, executing and administering individualized state-of-the-art solutions to meet customer's medical material and health care needs.

Headquartered at Fort Detrick, Md., NMLC supports the U.S. Navy with acquisition and logistics systems training, health care services strategies, operational forces support, medical equipment and logistics solutions, acquisition management, deployable platforms and eyewear fabrication.

NMLC has responsibility as the technical manager of the Navy's Direct Health Care Services Contracting Program and provides medical logistics and material management information and medical mobilization planning assistance for the U.S. Marine Corps and the U.S. Coast Guard.

NMLC has three areas of responsibility under its command; the Naval Ophthalmic Support and Training Activity, located at Naval Weapons Station, Yorktown, Va., the Naval Expeditionary Medical Support Command, located at Cheatham Annex, Williamsburg, Va., and the NMLC Pirmasens Germany Detachment.

## Programs

- Naval Medicine contracting, logistical support and consulting for medical and dental services, medical supplies and equipment
- Operational Forces Authorized Medical/Dental Allowance Lists – consumables for ships, health care facilities and med-kits
- Shipboard equipment replacement, new ship construction and overhaul programs
- Navy health care contracting analysis
- Biomedical and clinical engineer-



**Members of the Naval Medical Logistics Command Picture and Archiving Communication Systems team demonstrate a PACS workstation at the 2012 Audit Readiness Training Symposium, Lansdowne, Va. (Photo by Sheila A. Gorman)**

- ing technical support and program management for Navy medicine and dental procurement
- Navy Medicine clinical image management systems (Digital Imaging Network/Picture Archiving and Communications Systems)
- Design, construction, acquisition and maintenance of Navy expeditionary, deployable medical platforms
- Prime Vendor Program (pre-negotiated process for common medical quick-fill consumables)
- Defense Medical Logistics Standard Support (DMLSS), Wide Area Work Flow (WAWF) and Standard Procurement System
- (SPS) program management and execution for Navy Medicine
- Equipment, technology and medical maintenance management
- Pandemic Influenza and Vaccination Program
- Eyewear fabrication for military personnel
- Military Tri-Services Optician School
- Combat eyewear – inserts for gas masks and protective eyewear for combat forces
- Navy's Frames of Choice and G-Eyes eyewear program
- Preventive law in areas of OGC practice



# NAVY AND MARINE CORPS PUBLIC HEALTH CENTER

Navy and Marine Corps Public Health Center (NMCPHC) is the Navy and Marine Corps' center for public health services. NMCPHC is headquartered in Portsmouth, Va. It provides leadership and expertise in the development of policy and guidance in occupational and environmental medicine, disease surveillance, monitoring prevention, public health emergencies, and risk communication. Its core product lines are: Deployment Health, Disease Prevention, Public Health Response, Health Promotion and Wellness, and Health Information Management. Its 10 field activities provide further depth to our services through the Naval Dosimetry Center, Navy Bloodborne Infection Management Center, Navy Preventive Medicine Units (Norfolk, San Diego, and Hawaii; Rota Spain – set to open in Summer 2013), Navy Drug Screening Laboratories (Great Lakes, Ill., San Diego, and Jacksonville, Fla.) and the Navy Entomology Center of Excellence. The NMCPHC enterprise will focus efforts on further shaping evidence-based programs that are more responsive by building a collaborative joint-focused network to effectively address global public health concerns.

NMCPHC professionals will continue to interface with policy makers both within and external to the Department of Defense, public health practitioners, and medical personnel to provide effective Force Health Protection measures to warfighters ashore and afloat.

## Successes and Accomplishments

- NMCPHC's Navy Drug Screening Laboratories (NDSL) processed more than 2.3 million urine samples from active duty, reserve, recruit, and military applicants (MEPS) for all Services of the Armed Forces. The NDSLs located in San Diego, Jacksonville, and Great Lakes were consistently able to report negative drug test results



**Two Comprehensive Industrial Hygiene Labs provide analysis of industrial hygiene samples to identify, quantify, and report the occupational exposures to chemical and biological substances.** (Photo courtesy of the Navy and Marine Corps Public Health Center)

within two days of sample receipt and positive drug test results within four and a half days.



- Formally re-established the Navy Environmental Preventive Medicine Unit Seven (NEPMU-7), Rota, Spain.
  - The Navy Entomology Center of Excellence (NECE) and Centers for Disease Control (CDC) teamed up to complete several projects aimed at increasing an understanding of important integrated pest management techniques used in global humanitarian efforts and in deployed settings.
  - NEPMU-2 developed a norovirus testing kit to support Navy Medicine's efforts to get a better assess the burden of norovirus outbreaks and subsequent loss of manpower throughout the Fleet.
  - NMCPHC collaborated with Center for Personal and Professional Development (CPPD) in the deployment of the Navy Operational Fitness and Fueling System (NOFFS) Navy-wide, including the development of an iPhone application for use anytime/anywhere.
  - NMCPHC continues work with Navy Medicine's Wounded, Ill and Injured (WII) Program. WII
- Project 141 has identified metrics and best practices that assist our deployed war-fighters and their families prior to, during and after deployments. The WII 141 projects include:
- Health Analysis – providing Navy Medicine leaders with public health informatics to assist in making decisions about all aspects of health care of WII services members.
  - Epidemiologic Analysis – provides information to medical and operational leaders on communicable and infectious diseases that impact military readiness.
  - Health Promotion – provides Navy Medicine with evidence-based health promotion programs and services that facilitate readiness and resilience, prevent illness and injury, hasten recovery and promote lifelong healthy behaviors.
  - Successfully completed the annual certification Forward Deployable Preventive Medicine Units (FDP-MUs) as required for deployment readiness.
  - The Navy Bloodborne Infection Management Center (NBIMC) processed HIV testing on 629,193 individuals and Hepatitis Testing on 72,952 individuals.

# NAVY MEDICINE LOC






## California

-  NMC San Diego
-  NEMTI Camp Pendleton
-  NH Twentynine Palms
-  NH Camp Pendleton
-  NH Lemoore
-  NHRC San Diego
-  USNS Mercy
-  SWMI San Diego

## Connecticut

-  NSMRL Groton
-  NUMI Groton

## Florida

-  NAMI Pensacola
-  NH Jacksonville
-  NH Pensacola
-  NMETC Detachment Jacksonville
-  NOMI Pensacola

## Hawaii

-  NAMRU-2 Pearl Harbor
-  NHC Hawaii

## Illinois

-  Captain James A. Lovell Federal Health Care Center

## Maryland

-  Walter Reed NMMC, Bethesda
-  NHC Annapolis
-  NHC Patuxent River
-  NMLC Fort Detrick
-  NMRC Silver Spring

NH Oak Harbor

NH Bremerton

Captain James A. Lovell Federal Health Care Center

NH Lemoore

NH Twentynine Palms

NEMTI Camp Pendleton

NH Camp Pendleton

SWMI San Diego

NHRC San Diego

USNS Mercy

NMC San Diego

NAMRU 2 Pearl Harbor

NHC Hawaii

NAMRU - San Antonio

NMSTC San Antonio

NMETC San Antonio

NHC Corpus Christi

## North Carolina

-  NH Camp Lejeune
-  NHC Cherry Point


## Ohio

-  NAMRU Dayton


## Rhode Island




-  NHC New England

## South Carolina

-  NH Beaufort
-  NHC Charleston

## Texas



-  NAMRU - San Antonio

-  NHC Corpus Christi
-  NMSTC San Antonio
-  NMETC San Antonio

## Virginia

-  BUMED Headquarters
-  NMCPHC Portsmouth
-  NMC Portsmouth
-  USNS Comfort

## Washington

-  NH Bremerton
-  NH Oak Harbor



HEADQUARTERS



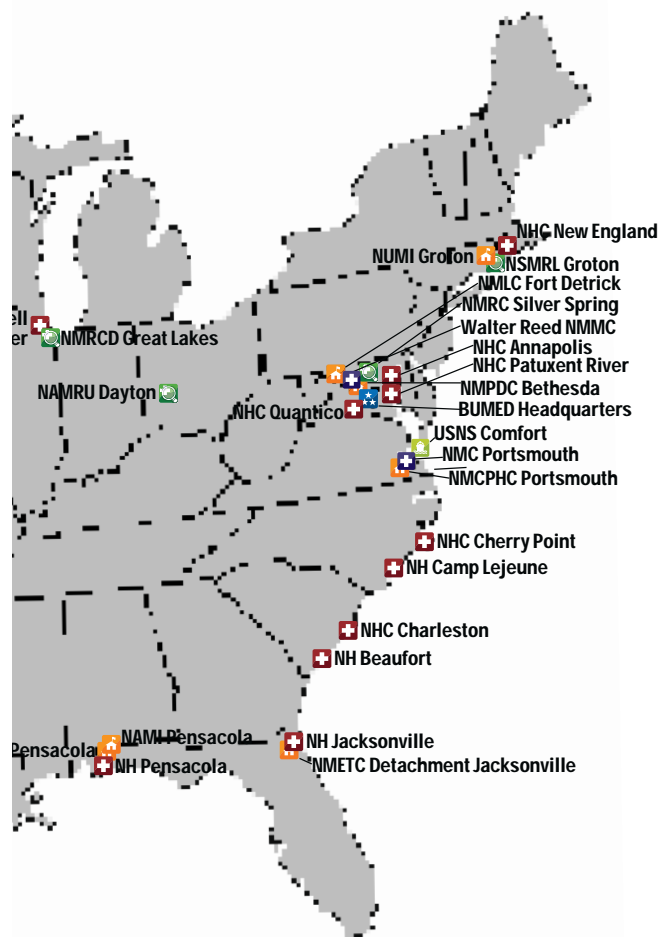
NAVY MEDICAL CENTER



MILITARY SEALIFT  
COMMAND  
HOSPITAL SHIPS



# CATIONS



## SYMBOLS



REGIONAL  
MEDICAL  
CENTERS



NAVAL  
HOSPITALS/  
HEALTH CLINICS



NAVY MEDICINE  
RESEARCH  
UNITS



NATO ROLE 3  
HOSPITAL



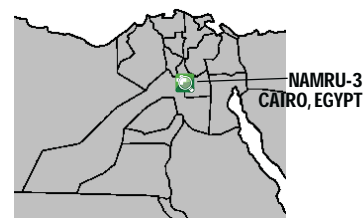
NAVY MEDICINE  
SUPPORT UNITS

## OVERSEAS LOCATIONS

CUBA



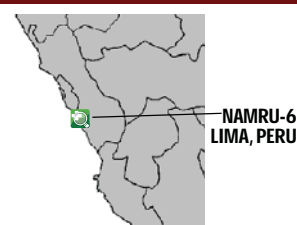
EGYPT



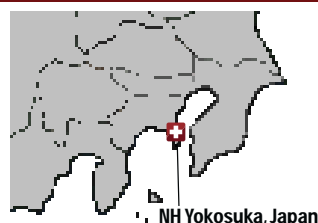
GUAM



PERU



JAPAN



ITALY



SPAIN



AFGHANISTAN



## ABBREVIATIONS

BUMED - U.S. Navy Bureau of Medicine and Surgery  
NAMI - Naval Aerospace Medical Institute  
NAMRU - Naval Medical Research Unit  
NEMTI - Naval Expeditionary Medical Training Institute  
NH - Naval Hospital  
NHRC - Naval Health Research Center  
NMC - Naval Medical Center  
NMCPhC - Navy and Marine Corps Public Health Center  
NMETC - Navy Medicine Education and Training Campus

NMLC - Naval Medical Logistics Command  
NMMC - National Military Medical Center  
NMPDC - Navy Medicine Manpower, Personnel, Training and Education Command  
NMRC - Naval Medical Research Center  
NMTC - Navy Medicine Training Center  
NOMI - Naval Operational Medicine Institute  
NSMRL - Naval Submarine Medical Research Laboratory  
NUMI - Naval Undersea Medical Institute  
SWMI - Surface Warfare Medicine Institute  
USNS - United States Navy Ship

# NAVAL MEDICAL RESEARCH CENTER

## Naval Medical Research Center

The Naval Medical Research Center (NMRC) is a global enterprise conducting health and medical research, development, testing, evaluation and surveillance to support DoD personnel worldwide. With a cadre of scientific leadership and technical expertise focusing on force health protection and enhancing deployment readiness, the NMRC team represents years of experience in science, medicine and the military. In support of the Navy, Marine Corps and joint U.S. warfighters, researchers study infectious diseases; biological warfare defense; bioeffects of directed energy; combat casualty care; operational dental needs; environmental health concerns; bone marrow transplantation; aerospace and undersea medicine; medical modeling,

simulation and operational mission support; warfighter performance; and epidemiology and behavioral science. NMRC has an outstanding network of national and international research partnerships along with cooperative agreements with strategic security partners and host nations to meet the mission of supporting the warfighter. The NMRC headquarters is located in the Inouye Bldg. on the Walter Reed Army Medical Center Forest Glen Annex in Silver Spring, Md.

## CONUS and OCONUS Laboratories Naval Medical Research Center

The main areas of study for NMRC are infectious diseases, operational and undersea medicine, bone marrow research, and biological defense research. Scientists are conducting research on infectious diseases that are considered to be significant threats to deployed warfighters. Researchers are working to minimize the impact of these diseases by preventing infection or clinical disease, and in most cases the best approach is the development of new vaccines. Researchers are developing novel strategies to prevent and treat combat casualties with early, far forward interventions. Other researchers are developing new technologies and interventions to improve performance and reduce injury to Navy submariners and military divers. The bone marrow research effort is developing treatment methods for marrow damaged by radiation and chemical weapons. In the area of biological defense, researchers are discovering ways to protect military personnel from biological attack by developing agent-specific identification assays, vaccines and therapeutics.

## Research

- Malaria vaccine development
- Enteric diseases countermeasures and vaccine development
- Dengue vaccine development

- Rickettsial Diseases diagnosis, assessment and vaccine development
- Wound infections studies
- Operational and Undersea Medicine
- Performance improvement and injury reduction in personnel engaged in undersea occupations
- Novel strategies to prevent and treat combat casualties
- Unique initiatives in regenerative medicine
- Manage the C.W. Bill Young Marrow Donor Program
- Bone marrow treatment for radiation and chemical weapon exposure
- Functional genomics and bioinformatics
- Immunodiagnostics
- Vaccine and medical countermeasures
- Molecular diagnostics
- International field microbiology
- Significant accomplishments:
- Advances in acute blast overpressure pathology and repeated blast effects
- Working with the Bill and Melinda Gates Foundation to develop malaria vaccines
- Vaccine trials for dengue, shigella, e. coli and malaria
- Laboratory models of decompression sickness oxygen toxicity
- Predictive biomarkers of wound healing
- Innovative hand-held assays for bio-warfare detection
- Only Navy laboratory with OSP 34/17025 accreditation for production of polymerase chain reaction and antibody reagents to detect bio-warfare agents

## Naval Health Research Center

Naval Health Research Center (NHRC), located in San Diego, is meeting the expeditionary operational medicine needs of the Navy and the Marine Corps, as well as Army and Air Force personnel. NHRC works closely with operational units to conduct medical modeling and simulation analysis; monitor the effects of combat exposure on psychological health; manage career-span deployment health and readiness programs, improve warfighter performance, and assist in the implementation of military-specific HIV prevention programs around the world.



Roy Dory fastens a dummy into the Vertical Linear Accelerator. (Photo by Ashley Turnmire)





Ms. Nermeen Fahmy (middle) provides hands on polymerase chain reaction (PCR) training to Liberians on molecular detection of dengue and Chikungunya viruses in vector samples at NAMRU-3 Vector Biology laboratory. (Photo by Rafi George)

### Research

- DoD Combat Trauma Registry – Expeditionary Medical Encounter Database
- Shipboard and ground casualty projection algorithms
- Estimating Supplies Program (ESP)
- Tactical Medical Logistics Tool (TML+)
- ReSupply Validation Program (RSVP)
- Warfighter Performance
- Environmental stress studies
- Physical stress, load and impact studies
- Physical fitness and weight standards studies
- Cognitive neuroscience of stress and performance studies
- Behavioral trends that impact readiness
- Focused intervention strategies
- Behavioral needs assessment survey
- PTSD/TBI studies
- Career-span health and wellness studies
- Deployment Health Research
- Millennium Cohort Study
- Birth and Infant Health Registry
- Recruit Assessment Program
- Post-vaccination epidemiological studies

- Operational Infectious Diseases
- Global Emerging Infections System (GEIS)
- Surveillance of all DoD training sites
- Adenovirus vaccine clinical trial
- Military-to-Military Education & Awareness Strategies
- President's Emergency Plan for AIDS Relief (PEPFAR)
- Department of Defense HIV/AIDS Prevention Program assistance in over 70 countries

### Naval Submarine Medical Research Laboratory

Naval Submarine Medical Research Laboratory (NSMRL), located at New London Submarine Base, Groton, Conn., conducts research into submariner wellness, psychological fitness, shipboard health and performance, underwater bioeffects and submarine survival and escape, and human systems. Researchers work with many partners including the Naval Undersea Warfare Center, Naval Medical Center San Diego, NASA, NAVSEA, Navy Experimental Diving Unit, U.S. Army Research Institution of Environmental Medicine and others. NSMRL has a memorandum of agreement with Commander, Submarine Forces to serve as

their human technology laboratory.

### Research

- Research and evaluation on carbon dioxide technologies
- Submarine disaster survival and escape procedures and guidance
- New submarine atmosphere limits for mixed gender crews and deep submersibles
- Investigation of submariner bone health and vitamin D levels
- Submarine atmosphere monitoring
- Lead on psychological selection and classification of submariners, gender integration into submarines and other unique environments
- Bioeffects of underwater sound
- Documenting underwater hearing in humans
- Development and testing of dive side nose measurements
- Hearing conservation procedures

### Naval Medical Research Unit — San Antonio

Naval Medical Research Unit—San Antonio, (NAMRU-San Antonio), located at Fort Sam Houston, San Antonio, Texas, conducts medical and dental biomedical research addressing combat operations, and focuses on enhancing the health, safety, and readiness



**Capt. Stephen Savarino, head of the NMRC Enteric Diseases Department (left), and Dr. Daniel Isaac, U. S. Naval Academy professor and NMRC guest scientist. (Photo by Makeda Knott)**

of Navy and Marine Corps personnel. NAMRU-SA operates two facilities. The Battlefield Health and Trauma building houses the dental and biomedical research department, alongside the U.S. Army Institute for Surgical Research and the Air Force's Dental Evaluation and Consultation Service. The Tri-Service Research Laboratory building is used for inter-service applied research with the U.S. Army and U.S. Air Force.

### Research

- Effects of directed energy on living systems studies
- Protection, resuscitation and stabilization of in-theater combat casualties studies
- Primary and pre-clinical trials of drugs products and advanced therapies for hemorrhagic shock
- Identification and mitigation of operational stressors to improve survivability
- Restorative dental materials
- Dental diseases, microbiology, immunology etiology
- Evaluation of systems and technolo-

gies

### Naval Medical Research Unit – Dayton

The research efforts of Naval Medical Research Unit - Dayton (NAMRU-Dayton), located at Wright-Patterson Air Force Base, Dayton, Ohio, focus on maximizing warfighter performance and survivability through aeromedical and environmental health research to deliver solutions to the field, the Fleet and for the future. Researchers conduct aerospace-relevant basic and applied research in the biomedical and behavioral sciences. Devices such as the Reduce Oxygen Breathing Device and the new Disorientation Research Device provide unique capabilities for research. Toxicology researchers are studying exposure issues related to mixed submarine atmospheres (CO<sub>2</sub>, O<sub>2</sub>, and CO) and many jet fuel studies. They are evaluating a variety of exposure effects including limb strength, pupil function, simple learning, memory and anxiety-like behavior. The laboratory is active in the field of in vitro toxicology, using human cells to evaluate effects of exposure by specific

chemicals or mixtures.

### Research

- Hypoxia research
- Operational stress and resilience studies
- Training and evaluation studies
- Cognitive neuroscience studies
- Fatigue modeling and countermeasures
- Personnel selection studies
- Vibration studies
- Color vision studies
- Motion sickness studies
- Spatial awareness and spatial disorientation studies
- In vitro screening of fuels
- Munitions and toxic load modeling
- Toxicities studies of burn pit emissions
- Mixed gender crew studies in submarine atmospheres (CO<sub>2</sub>, O<sub>2</sub>, and CO)
- Particulate matter and traumatic brain injury studies
- In vivo toxicity of jet fuel studies

### U.S. Naval Medical Research Unit No. 2 – Pacific

U.S. Naval Medical Research Unit No. 2 – Pacific (NAMRU-2), located at Joint Base Pearl Harbor-Hickam, Hawaii, conducts basic and applied biomedical research to prevent, mitigate, and control infectious diseases of military relevance in Southeast Asia. The laboratory supports U.S. interests in the Pacific Theater. NAMRU-2 implements a variety of classical, modern and next-generation scientific methods sustainable in low-resource environments. Researchers form partnerships with regional governments (Cambodia, Lao People's Democratic Republic, Singapore and Vietnam), international health organizations, and U.S. government agencies to complement NAMRU-2 testing capacity, surveillance networks, and scientific investigation of infectious disease. NAMRU-2 supports host-nation capacity building to monitor and mitigate diseases to reduce infectious disease risk to U.S. service members deployed to the region.

### Research

- Investigation of outbreaks of acute diarrheal diseases



- Etiologic agents of febrile and vector borne infections
- Influenza and respiratory infection surveillance
- Emergence of antimicrobial resistant organisms and mechanisms of resistance
- Malaria surveillance, resistance, and treatment studies
- Development of sites for evaluation of new vaccines, e.g. dengue virus
- Collaborations with U.S. and foreign national militaries, public and private health research agencies, non-governmental organizations and academia

### **U.S. Naval Medical Research Unit No. 3**

U.S. Naval Medical Research Unit No. 3 (NAMRU-3), located in Cairo, Egypt, studies, monitors and detects emerging and re-emerging disease threats of military and public health importance in the Middle East, South-west Asia, Africa and Eastern Europe. Researchers develop mitigation strategies against these threats in partnership with host nations and international and U.S. agencies in CENTCOM, EUCOM, and AFRICOM areas of responsibility. Current studies focus on influenza-like illness, acute febrile illness, diarrheal diseases, hemorrhagic fever, HIV and infection control. NAMRU-3 works closely with the Egyptian Ministry of Health, NIH, WHO, USAID, and CDC. NAMRU-3 is also a WHO collaborat-

ing center and reference laboratory.

### **Research**

- Diarrhea and influenza like research in Djibouti
- Collaboration, training and reference laboratory for Egyptian Ministry of Health
- Capacity building in partnership with DTRA
- Areas acute febrile illness, infection control, HIV/STI and TB studies
- Integrated human animal vector surveillance, acute diarrheal illness, acute respiratory illness
- MOH capacity building
- Field and lab research on sand flies, mosquitoes, ticks, pesticide resistance, pest control, personal protection, surveillance methodologies
- Capacity building in Egypt, Libya, Ghana, South Sudan and Liberia on identification of vectors, vector surveillance techniques, specimen processing, biology/ecology of arthropod vectors
- Arbovirus surveillance (Dengue, Rift Valley fever, Congo Crimean Hemorrhagic Fever, Chikungunya, Tick-Borne Encephalitis, Hantaviruses)
- Outbreak response
- **NAMRU-3 Ghana Detachment:**
- Influenza surveillance: mil-to-mil at six sites
- Projects on malaria resistance and diarrhea surveillance
- Collaboration with Burkina Faso,

Côte d'Ivoire, Ghana and Togo

### **U.S. Naval Medical Research Unit No. 6**

U.S. Naval Medical Research Unit No. 6 (NAMRU-6), located in Callao, Iquitos, and Puerto Maldonado, Peru, conducts research on infectious diseases in Central and South America, with an emphasis on those with the potential to affect military operations. Today NAMRU-6 partners with host nation military organizations, government agencies, and prestigious academic institutions throughout Latin America. NAMRU-6 established productive relations with the Ministries of Health of several countries and collaborates closely with AFHSC-GEIS, CDC, NIH, PAHO, USAID and numerous U.S. universities and non-governmental organizations. These partnerships yield a robust research agenda that includes work in prevention strategies, clinical management trials, immuno and molecular rapid diagnostics, epidemiology, and disease ecology as well as projects measuring the social and economic impact of disease. NAMRU-6 focuses research and surveillance on infectious diseases of military and public health significance in the region, including malaria and dengue fever, yellow fever, viral encephalitis, leishmaniasis, Chagas' disease, and enteric diseases such as shigellosis and typhoid fever. NAMRU-6 is the only U.S. military command in all of South America.

### **Research**

- Diarrheal diseases studies
- Vaccine development
- Febrile illness and surveillance
- Sexually transmitted infections surveillance
- Antimicrobial resistance studies
- Disease surveillance
- Influenza working group
- Vector research and control
- Malaria surveillance and studies
- Leishmaniasis and other parasitic infection surveillance and studies
- HIV and sexually transmitted infections surveillance
- Viral respiratory diseases studies
- Vector-borne diseases studies



Lt. Cmdr. Hong Gao evaluates a study participant's vision in a NAMRU-D lab.  
(Photo by Ashley Turnmire)

# AFLOAT MEDICAL CAPABILITIES

## T-AH (HOSPITAL SHIP STAFFING CAPABILITY)

Operating Rooms	12
Intensive Care Unit Beds	100 (includes 20 post-surgical recovery beds)
Intermediate Care Beds	400
Minimal Care Beds	500
Ancillary Capabilities	Laboratory, x-ray, pharmacy, CT scanner, blood storage
<b>COMPLEMENT (STAFFING FOR 1000 BEDS)</b>	
Medical Corps	66
Nurse Corps	168
Medical Service Corps	20
Dental Corps	4
Hospital Corpsmen	698
Non-Medical Officer	14
Non-Medical Enlisted	244

## HOSPITAL SHIPS (T-AH)

Hospital ships are operated by a Military Sealift Command (MSC) and are designed to provide emergency, onsite care for U.S. combatant forces deployed in war and other operations. The mission of the T-AH is to provide a mobile, flexible, rapidly responsive afloat medical capability to provide acute medical and surgical care in support of carrier and expeditionary strike groups and Navy/joint forces elements. Functioning under the provisions set forth in the Geneva Convention, they have capabilities equivalent to a CONUS general hospital. The T-AHs secondary mission is to provide full mobile hospital services by designated government agencies HA/DR or limited humanitarian care to these missions worldwide or peacetime military operations.



The Navy hospital ship USNS Mercy (T-AH 19), lead vessel for Pacific Partnership 2012, transits through the Pacific toward Guam.  
(Photo by Mass Communication Specialist 3rd Class Michael Feddersen)



CVN Capability	Staffing
Operating Rooms	1
Intensive Care Unit Beds	3
Ward Beds	52
Ancillary Capabilities	Laboratory, x-ray, pharmacy, preventive medicine, biomedical repair, aviation physical examinations, radiation health, spectacle fabrication
Complement (Ship's Company and Air Wing)	
Medical Corps	6* - * Includes embarked physicians
Dental Corps	5
Nurse Corps	2** - **Includes certified registered nurse anesthetist if anesthesiologist is not on board
Medical Service Corps	5
Hospital Corpsmen	47

### AIRCRAFT CARRIERS (CVN)

The mission of the CVN is to operate offensively in a high density, multi-threat environment as an integral member of a carrier strike group (CSG) or expeditionary strike group (ESG); and to provide credible, sustained forward presence, conventional deterrence, and support aircraft attacks in sustained operations in war. Supportive missions, including medical support of the crew members aboard, are facilitated by a self-sufficient carrier hospital, which is a 52-bed, level "2-plus" facility. The carrier's medical department also serves as a consultative and primary MEDEVAC facility for the other vessels within CSG/ESG, which may consist of another six ships and some 2,000 crewmembers.

The CSG/ESG is a tactical organization of surface and subsurface combatants, maritime aviation, assault and transport troops and their equipment for expeditionary operations. The notional ESG elements are:

- Amphibious assault ship
- Amphibious transport docks
- Surface combatants (guided missile cruisers, destroyers or frigates)
- Attack submarine



Sailors assigned to the medical department aboard the aircraft carrier USS Harry S. Truman (CVN 75) roll a dummy onto a stretcher during a medical emergency drill. (Photo by Mass Communication Specialist 3rd Class Lorenzo J. Burtleson)

# AFLOAT MEDICAL CAPABILITIES

LHD/LHA (AMPHIBIOUS ASSAULT SHIP) CAPABILITY	SHIP'S COMPANY/FST	SHIP'S COMPANY/FST/ MAP	
Operating Rooms	1	4	
Intensive Care Unit Beds	3	15	
Ward Beds	12	45	
Ancillary Capabilities	Laboratory, x-ray, pharmacy, preventive medicine, biomedical repair, aviation physical examination		
COMPLEMENT	SHIP'S COMPANY	FST	MAP
Medical Corps	2	3	11
Dental Corps	1		1
Nurse Corps		3	22
Medical Service Corps	1	1	1
Hospital Corpsmen	19	9	49

## AMPHIBIOUS ASSAULT SHIP (LHD, MULTI-PURPOSE)

LHDs are the largest and most versatile amphibious assault ship. Externally, it resembles an aircraft carrier. The LHD is capable of transporting approximately 1,800 troops along with the helicopters, boats, and amphibious vehicles required for landing them. LHDs have the largest medical capability of any amphibious ship currently in use. LHDs are capable of receiving casualties from helicopter and waterborne craft and are designed to function as primary casualty receiving and treatment ships in amphibious operations.

## AMPHIBIOUS ASSAULT SHIP (LHA, GENERAL-PURPOSE)

LHAs can transport approximately 1,900 troops along with the helicopters, boats, and amphibious vehicles required for landing them. LHAs are capable of receiving casualties from helicopter and waterborne craft and are designed to function as primary casualty receiving and treatment ships in amphibious operations.

Sailors assigned to the amphibious assault ship USS Bonhomme Richard (LHD 6) practice CPR techniques in the ship's medical triage. (Photo by Mass Communication Specialist 2nd Class Adam M. Bennett)





## SURFACE COMBATANTS

**Cruiser (CG)  
Destroyer (DD/G)  
Frigate (FF)  
Littoral Combat Ship (LCS)**

The surface combatant ships, cruiser (CG), destroyer (DD/G), and frigate (FF) have limited medical capabilities and staffing. Their ancillary capability consists of basic laboratory. They are manned by at least one Independent Hospital Corpsman (NEC 8425) and one general duty junior hospital corpsman.

## AMPHIBIOUS TRANSPORT DOCK (LPD)

The mission of the LPD is to transport and land Marines, their equipment and supplies by embarked landing craft or amphibious vehicles augmented by helicopters. The LPD San Antonio class contains enhanced command and control features and a robust communications suite that improves its ability to support embarked landing forces, joint and friendly forces. They could be used as emergency or overflow CRTSs if augmented with medical personnel and supplies.

## AMPHIBIOUS COMMAND SHIP (LCC)

LCCs serve as command centers for amphibious operations. These ships are equipped with sophisticated electronic and communications equipment and normally serve as the flagship of both the CATF/ESG and CLF. LCCs have adequate medical facilities to care for embarked personnel but their limitations preclude use as CRTSs.

## DOCK LANDING SHIP (LSD)

The mission of the dock landing ship (LSD) is to transport and land Marines, their equipment and supplies either by embarked landing craft or amphibious vehicles augmented by helicopters and to support amphibious operations including landings via landing craft air cushion (LCAC). Although called a landing ship, the LSD does not beach. These ships are similar to LPDs with larger well decks but limited troop and cargo carrying capacities. LSDs offer limited use as CRTSs if augmented with medical personnel and supplies.

LPD (Amphibious Transport) Capability		Staffing
Operating Rooms (minor surgeries)	2	
Ward Beds	24	
Dental	2	
LCC (Amphibious Command Ship) Capability		Staffing
Operating Rooms (minor surgeries)	1	
Intensive Care Unit Beds		
Ward Beds	20	
Overflow Beds		
Quiet/Isolation Beds	4	
Ancillary Capabilities		Laboratory and x-ray
Complement		
Medical Corps	1	
Dental Corps		
Nurse Corps		
Medical Service Corps		
Anesthesia Provider		
Hospital Corpsmen	12	
Dental Technicians		
LSD Capability		Staffing
Operating Rooms		
Intensive Care Unit Beds		
Ward Beds	8 (2 isolation beds)	
Ancillary Capabilities		Laboratory and x-ray
Complement		
Medical Corps	1	
Dental Corps	1	
Hospital Corpsman	9	
AS (Submarine Tender) Staffing		
Operating Rooms	1	
Intensive Care Unit Beds		
Ward Beds	12	
Ancillary Capabilities		Laboratory, x-ray and pharmacy
Complement		
Medical Corps	2	
Medical Service Corps	1 (Radiation Health)	
Independent Duty Corpsmen	2	



Sailors practice applying a splint during a medical training team drill aboard the guided-missile cruiser USS Hue City (CG 66). (Photo by Mass Communication Specialist Seaman Darien G. Kenney)



# MEDICAL CORPS

## A Brief History

On March 3, 1871, the 41st Congress enacted the Appropriations Act which established the Medical Corps as a separate entity and as a Staff Corps of the U.S. Navy. However, the term "Medical Corps" and the existence of Navy physicians, long pre-date this Congressional Act. Early in 1798, the first physicians were awarded commissions in the U.S. Navy as "Surgeons" and "Surgeons Mates." Their mission was simple: provide medical care aboard ships and shore stations.

This early Navy Medical Department was a crude institution that did not yet include permanent Navy hospitals. Navy physicians served at Marine (later Public Health) hospitals and other makeshift facilities spread throughout the eastern seaboard. A bill establishing permanent Navy hospitals was signed into law on Feb. 26, 1811. Some twenty years later, the first of these hospitals went into commission at Portsmouth, Va. On Aug. 31, 1842, the Bureau of Medicine and Surgery (BUMED) was created to oversee administration of hospitals and medical supplies. And 1871, the title of "Surgeon General of the U.S. Navy" was created for the chief of BUMED.

The Medical Corps' scope has grown in complexity since 1871. Navy physicians now serve with the Marine Corps, in the Attending Physician's Office to Congress and the White House. They also serve in the aviation and undersea medical communities, and as astronauts exploring the frontiers of space. The Navy Medical Corps continues to pave new frontiers in biomedical research, medical education and training, and patient care delivery at our clinics, hospitals, aboard our afloat platforms, and in combat theaters.

## Primary Responsibility of Medical Corps Officer

The Navy Medical Corps is broad and diverse. It is comprised of physicians who are practicing or training in dozens

of medical and surgical specialties with over 200 subspecialties.

## Manpower

Active Duty: 3,813

Reservists: 560

## Areas of Specialties

- Family Medicine
- Internal Medicine
- Pediatrics
- General Surgery
- Orthopedics
- Otolaryngology
- Ophthalmology
- Emergency Medicine
- Radiology
- Psychiatry
- Obstetrics/Gynecology
- Preventive Medicine
- Occupational Medicine
- Aerospace Medicine
- Undersea Medicine
- Plastic & Reconstructive Surgery
- Neurosurgery
- Neurology
- Anesthesiology
- Urology
- Pathology

- Physical & Rehabilitative Medicine
- Dermatology
- Over 200 subspecialties

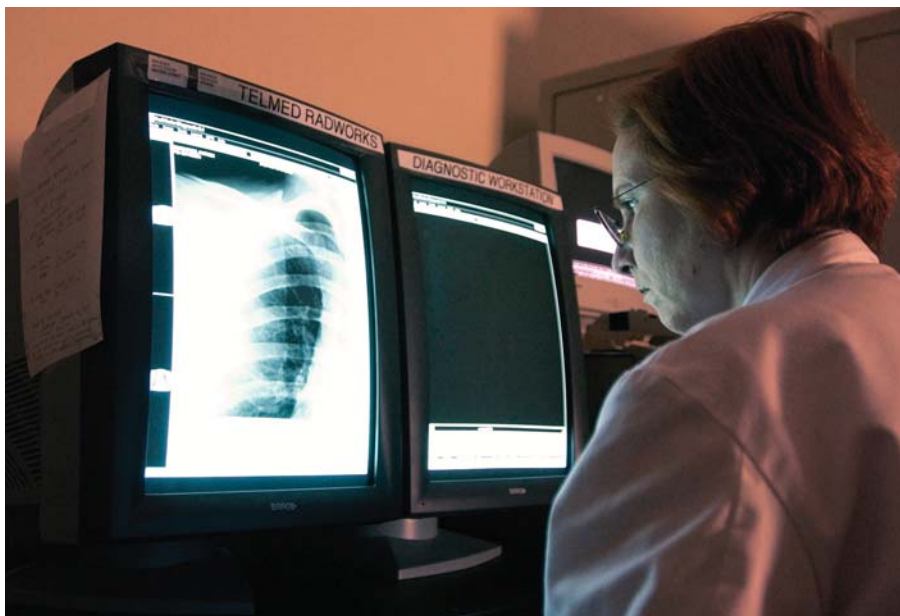
## Possible Locations of Service

Navy physicians are stationed at our major tertiary care teaching facilities, clinics, and hospitals located within the United States and various overseas locations. They are at research units, in various joint commands, and in other federal institutions. Navy physicians are assigned as operational medical officers providing direct support to Navy and Marine Corps commands, squadrons, battalions and units. On very short notice, Navy physicians deploy in support of combat operations, disaster relief, and humanitarian assistance missions, providing patient care ashore and afloat.

## Special Pays Associated with the Medical Corps

Navy physicians are offered a number of special pays commensurate with their specialty, years of service, and intention to remain on active duty. These medical special pays include:

- Variable Special Pay
- Board Certified Pay
- Additional Special Pay
- Incentive Special Pay
- Multiyear Special Pay



Cmdr. Sharon Marshall interprets x-rays from the fleet at the National Military Medical Center in Bethesda, Md. The hospital receives digital x-rays from many Navy ships and bases that do not have radiologists on staff. The x-rays are evaluated and the evaluation is returned by encrypted e-mail. (Photo by Chief Warrant Officer 4 Seth Rossman)





# NURSE CORPS

## A Brief History

Nurses have contributed to the care of the ill and wounded in the Navy long before the establishment of the corps. During the Civil War, Catholic nuns served as volunteers aboard the Red Rover, the Navy's first commissioned hospital ship. In 1898, nurses were employed by the Naval Hospital Norfolk, Va., to care for the sick and wounded from the Spanish-American War. Finally, after years of effort, the bill to establish the Navy Nurse Corps was approved by Congress and became law on May 13, 1908. By October of that year, the first nurses, later called "The Sacred Twenty," reported for duty at the Naval Medical School Hospital, Washington, D.C., formerly the home of the Bureau of Medicine and Surgery.

Since then, active duty and reserve Navy nurses have advanced steadily in military and professional standing. From the original 20, the Nurse Corps expanded to over 11,000 during its peak in World War II. Nurse Corps officers have served worldwide; flying with the wounded from battle-torn areas, working in the fleet on large vessels and hospital ships, establishing native nursing schools, clinics, and small hospitals in remote areas of the world, and practicing, teaching, supervising, administering or commanding Navy medical treatment facilities of all sizes.

Today approximately 3,900 active and reserve Nurse Corps officers serve in the grades of ensign through rear admiral. They care for many patients whose illnesses and injuries are no different from those found in civilian facilities. They can also care for those in deployment settings with battle injuries. A primary mission of the Navy Nurse Corps is to teach and develop the hospital corpsmen. Nurse Corps officers can function in positions ranging from staff nurse to commanding officer, from quality improvement coordinator to nurse researcher, and as primary health care providers such as nurse practi-

tioners, nurse anesthetists, and nurse midwives. They serve aboard sea-going vessels, pierside, on deployments or humanitarian missions, and at clinics or inpatient facilities.

The Navy Nurse Corps provides unique challenges and assignments in settings ranging from expeditionary medical facilities to teaching hospitals; from Marine Corps medical battalions to surgical support teams; from recruiting assignments to headquarters staff and executive management of a health care region. Wherever they are assigned, Navy nurses find unique opportunities to exercise their special knowledge, abilities, and skills as they optimize the well-being of their patients and family members.

## Primary Responsibility of Nurse Corps Officer

Provide care or support either through direct patient care at the bedside or as a provider, in an administrative role, as an instructor, recruiter, quality management manager, or researcher.

## Manpower

Nurses:	4,112
Active Duty:	2,948
Reservists	1,164

## Areas of Specialties

- Medical-Surgical
- Manpower
- Education and Training
- Nursing Researcher
- Maternal/Infant
- Pediatrics
- Public Health
- Mental Health
- Mental Health Nurse Practitioner
- Emergency Room/Trauma
- Perioperative
- Critical Care
- Certified Nurse Anesthetist
- Pediatric Nurse Practitioner
- Family Practice Nurse Practitioner
- Women's Health Nurse Practitioner
- Nurse Midwife

## Possible Locations of Service:

Medical treatment facilities, clinics, recruiting centers, hospital corps school, the White House, expeditionary medical facilities, forward operating bases fleet surgical teams, aircraft carriers, Navy Medicine headquarters, and the Bureau of Naval Personnel.

## Special Pays Associated with the Nurse Corps

- Accession Bonus for Direct Accession
- RN-Incentive Specialty Pay (RN-ISP3)
- Certified Registered Nurse
- Anesthetists Incentive Specialty Pay (CRNA-ISP)



**Naval Medical Center San Diego nurse Ensign Madeline Gillette checks seven year-old Gionni Ramirez's cast and intravenous (I.V.) line in the pediatric inpatient ward. More than 1,006 active duty and civilian nurses provide patient care throughout NMCS. (Photo by Mass Communication Specialist 1st Class Anastasia Puscian)**



# DENTAL CORPS

## A Brief History

In August 1912, the second session of the 62nd Congress passed an act later signed by President Taft that established the Dental Corps. The Secretary of the Navy was authorized to appoint no more than 30 acting assistant dental surgeons to be a part of the Medical Department.

Just over one year later, the Surgeon General reported to the Secretary of the Navy that the Medical Department now had the ability to provide dental care that would allow the Navy to accept recruits who would otherwise be rejected for defective teeth.

In 1927, Navy regulations authorized dental treatment to officers and men on the retired list; before that only enlisted were treated. During this era, Navy dentistry began to focus heavily on prevention of disease, unique at the time and a quality that distinguishes their Corps today.

In February of 1945, the first self-contained mobile dental treatment unit began operation. Mobile units were developed to provide dental treatment to small groups of naval personnel in isolated areas or pier side, a practice common today at many Fleet support areas.

Revolutionizing the field of dentistry worldwide, researchers at the Naval Dental School developed pioneer models of the dental air turbine hand piece and ultrasonic vibrating instruments. These concepts were a tremendous leap forward for the dental profession. Today, these prototypes are currently displayed at the Smithsonian Institute.

In July of 1984, The Navy began conversion of two supertankers to hospital ships. The USNS Mercy and the USNS Comfort were placed in service in December of 1986. With 1000 beds and 12 operating rooms, each ship can provide dental services in two operating rooms, four dental treatment rooms and a dental laboratory.

In March of 1986, the Naval Dental School moved into its new spaces in Building 2 on the Bethesda Complex.



Lt. Patrick Hunter, a dental officer aboard the amphibious dock-landing ship USS Gunston Hall (LSD 44), performs dental work on Cryptologic Technician (Technical) 3rd Class Donovan Miller in the ship's dentist office. (Photo by Mass Communication Specialist 3rd Class Jonathan Sunderman)

What had begun as the Dental Department of the United States Naval Medical School in 1923 has evolved into a state of the art, fully accredited, post-graduate dental school, recognized as one of the best in the world.

Today, the Dental Corps continues to maintain high operational readiness for operations in Operation Enduring Freedom and Iraqi Freedom.

Dental is aggressively integrating with both Medical and Line communities to prepare for our latest challenge — homeland defense. They deploy routinely with Marine Expeditionary Units and aboard ships, where beyond their dental duties they assume roles in triage and surgical support at Marine battalion aid stations and battle dressing stations.

Dental personnel continue to play a significant role in peace keeping and nation building through humanitarian assistance and disaster relief missions in third world countries.

## Primary Responsibilities

**Mission:** Ensure dental readiness while optimizing dental health.

**Vision:** Dental health for those entrusted to our care.

## Manpower

Dentists:	1,351
Active Duty:	1,083
Reservists	268

## Locations of Services

28 Medical Treatment Facilities  
3 Marine Battalions  
11 Aircraft Carriers  
34 Amphibious  
2 Hospital Ships  
2 Support Ships  
9 Seabee Detachments

## Possible Special Pays

- Additional Special Pay (ASP)
- Variable Special Pay (VSP)
- Incentive Special Pay (ISP)
- Board Certified Pay (BCP)
- Multi-Year Special Pay



# MEDICAL SERVICE CORPS

## A Brief History

During World War II, 1,429 officers were given temporary appointments in the Hospital Corps and a total of 845 pharmacists, optometrists, and other specialists allied to medicine and dentistry were given temporary appointments as Naval Reserve officers. These two groups emphasized the need for a permanent officer category to complement officer corps then comprising the Medical Department.

The Army-Navy Medical Service Corps Act of 1947 provided a permanent commissioned corps of specialists to complement the existing Medical Department officer categories. The original legislation provided for the Corps to be comprised of four sections: Supply and Administration, Medical Allied Sciences, Optometry and Pharmacy and authorized the Secretary of the Navy to create other sections, as necessary. The Women's Specialist Section was established in 1952, and in 1965, was re-titled the Medical Specialist Section to permit the appointment of male officers. The Podiatry Section was established in 1953.

During Operations Desert Shield/Storm 317 Reserve Medical Service Corps officers were recalled to replace those deployed and to provide the additional manpower in theater necessary. Since 1991, the Reserve component of

the Medical Service Corps has continued to work alongside active duty personnel to administer and provide quality health care throughout the world.

## Primary Responsibilities

**Mission:** The Medical Service Corps community supports Navy Medicine's readiness and health benefits mission.

**Vision:** One Corps of many specialties meeting today's needs and tomorrow's challenges.

## Manpower

Active Duty:	2,622
Reservists	332

## Specialties

The Medical Service Corps, the most diverse corps within Navy Medicine, is comprised of 31 subspecialties, organized under three major categories:

### Healthcare Administrators :

- Financial Management
- Education/Training Management
- Patient Administration
- Health Care Info Systems
- Manpower, Personnel
- Healthcare Facility Planning
- Operations Analysis
- Plans, Ops, & Med Intel
- Healthcare Administration
- Material Logistics

### Clinicians:

- Audiology
- Clinical Psychology
- Occupational Therapy
- Optometry
- Pharmacy
- Dietetics
- Physical Therapy
- Physician Assistant
- Podiatry
- Social Work

### Scientists:

- Entomology
- Environmental Health
- Industrial Hygiene
- Medical Technology
- Aerospace Physiology
- Aerospace Exp Psych
- Research Psych
- Radiation Health
- Physiology
- Microbiology
- Biochem/Toxicology

## Locations of Services

Navy medical treatment facilities  
Naval branch clinics  
Ships  
USMC battalions  
Fleet Marine Force  
Seabee detachments  
Research centers and laboratories  
EMF Kuwait and EMF Djibouti  
Iraq and Afghanistan  
Staff positions throughout the Navy and Marine Corps

## Possible Special Pays

Members of the Navy Medical Service Corps are offered a number of special pays commensurate with their specialty, years of service, and intention to remain on active duty. These medical special pays include:

- Accession Bonus
- Incentive Pay
- Retention Bonus
- Board Certified Pay
- Optometry Special Pay
- Optometry Retention Special Pay
- Pharmacy Accession Bonus
- Pharmacy Officer Special Pay



Lt. William Martin, a pharmacist at Naval Hospital Jacksonville, takes Zoe Sieber, a college preparatory medical arts magnet high school student attending a Science, Service, Medicine and Mentoring (S2M2) program, on a tour of the inpatient pharmacy. (Photo by Mass Communication Specialist 2nd Class Gary Granger Jr.)



# HOSPITAL CORPS



**Hospital Corpsman 2nd Class Scott Holmes, and Hospitalman Rueben Ruiz, both assigned to U.S. Naval Hospital Yokosuka, assist a simulated patient played by Gas Turbine Systems Technician (Mechanical) Fireman Seth Patterson during a drill at Fleet Activities, Yokosuka. (Photo by Mass Communication Specialist Seaman Mackenzie P. Adams)**

## Hospital Corps History

Established by Congressional Law on June 17, 1898, the Hospital Corps is the only enlisted corps in the military. They are the most decorated singular group of enlisted men and women with 22 Medals of Honor, 174 Navy Crosses, 31 Distinguished Services Medals, 946 Silver Stars, and 22 ships named in their honor. In the early 1900's the Hospital Corps numbered less than 2,000, but that is stark contrast to the nearly 26,000 of today, honorably serving in support of the Navy and Marine Corps. The essence of a hospital corpsmen is the honor they carry of the sacred trust of treating their fellow injured and ill service members, the unspoken bond.

The HM rating is the largest and most diverse in the Navy. Because of the broad spectrum of Navy enlisted classifications (NEC) available to a hospital corpsman, the performance of their

duties span from the special operation environments of Afghanistan, under the sea, to most advance hospitals in the world utilizing the most advanced technology and sciences, and scores of other environments. Where ever there are Sailors and Marines, a Navy corpsman will be there.

All corpsmen attend boot camp for 10 weeks and then HM 'A' School for 14 weeks. After completion of A school, corpsmen may go directly to Fleet, or medical treatment facilities, or Field Medical Training Battalion (eight weeks) for duty with the Fleet Marine Force. Within the rating, there are 38 occupational specialties, which require further technical training via C-schools. Most specialty training is long and intense; many are at least one year in length. Some of the most demanding specialties, such as independent duty corpsmen, go through a series of schools as their career

progresses. One of the specialties, morticians, requires civilian licensing prior to entry into the Navy.

The HM rating has 25,481 on active duty and is manned at 97%. The Reserve Full Time Support strength is 638. There are more than 700 Hospital Corpsmen supporting Health Service Augmentation Program and Individual Augmentee missions, more than 6,500 supporting Fleet Marine Force, and more than 5,000 in serving on ships, submarines, SEABEES, and other sea duty platforms. At any given time, there are more than 2,700 in training. As a result of the 2005 Base Realignment and Closure, which completed in 2011, the Navy moved a majority of enlisted medical education to Fort Sam Houston, Texas in conjunction with the Army and Air Force making the Medical Education and Training Command the largest military medical training facility in the world.

The diversity of the HM rating is evident with the NEC listing.

## NECs and school locations

**HM-0000** - Hospital Corpsman Basic- San Antonio, Texas

**HM-8402** - Submarine IDC- Naval Undersea Medical Institute (NUMI) Groton, Conn.

**HM-8403** - Recon IDC- Fort Bragg N.C.

**HM-8404** - Fleet Marine Force- FM-TB Camp Lejeune, N.C.

**HM-8406** - Aerospace Medicine Technician- FMTB Camp Pendleton, Calif.

**HM-8401** - SAR Medical Techs- Naval Operational Medical Institute (NOMI) Pensacola, Fla.

**HM-8409** - Aviation Physiology- NOMI Pensacola, Fla.

**HM-8407** - Radiation Health Technician- Naval Undersea Medical Institute Groton, Conn.

**HM-8408** - Cardiovascular Technician- San Antonio, Texas

**HM-8410** - Biomedical Equipment Technician- San Antonio, Texas

**HM-8416** - Nuclear Medicine Technician- San Antonio, Texas

**HM-8425** - Surface Force IDC- NOMI San Diego, Calif.



**HM-8427** - Recon Corpsman- Fort Bragg N.C.

**HM-8432** - Preventative Medicine Technician- San Antonio, Texas

**HM-8434** - Hemodialysis Technician- Portsmouth, Va.

**HM-8452** - Radiographer- San Antonio, Texas

**HM-8454** - Electronneurodiagnostic Technician- San Antonio, Texas

**HM-8463** - Optician- Naval Ophthalmic Support & Training Activity (NOSTRA), Yorktown, Va.

**HM-8466** - Physical Therapy Technician- San Antonio, Texas

**HM-8467** - Occupational Therapy Technician- San Antonio, Texas

**HM-8482** - Pharmacy Technician- San Antonio, Texas

**HM-8483** - Surgical Technologist- San Antonio, Texas

**HM-8485** - Behavior Tech- San Antonio, Texas

**HM-8486** - Urology Technician- San Antonio, Texas

**HM-8489** - Orthopedic Castroom Technician- San Antonio, Texas

## Independent Duty Corpsman (IDC) 8425- Surface Force, 8402- Submarine, 8494- Dive

Independent Duty Corpsman (IDC) is the rating's master level NEC. They are trained to work in remote locations without direct supervision of a physician. Their operational environment is dependant on how each are trained. Every IDC is the medical department representative (MDR) on their platform or unit in which they serve. The largest group are the Surface IDCs, and they work aboard surface ships, with the units of the Fleet Marine Force, or the SEABEES. Submarine IDCs serve aboard fast attack and Trident missile submarines. Dive IDCs are stationed with various dive and special operational units. All can be found at various isolated duty stations ashore independent of a medical officer. Although IDCs are responsible directly to the commanding officer for the health and care of the crew, they perform a myriad of functions as it relates to their role as the MDR. A few functions associated with their duties are shipboard or unit administration, health education and training, logistics, preventive medicine, and industrial health surveillance. Senior personnel assigned to shore and operational staffs provide medical assistance, training, and inspection services to operational forces and component units. Additionally, when assigned ashore, they serve primarily as nonphysician health care providers at fixed medical treatment facilities. IDCs are truly the best of the best within the Hospital Corps.

Hospital Corpsman 2nd Class Julia Doswell, left, and Hospital Corpsman 3rd Class Neal Mendoza help a simulated casualty during a training exercise aboard the amphibious transport dock ship USS New York (LPD 21). New York and the embarked 24th Marine Expeditionary Unit (24th MEU) are part of the Iwo Jima Amphibious Ready Group with currently deployed to the U.S. 5th Fleet area of responsibility in support of maritime security operations and theater security cooperation efforts.  
(Photo by Mass Communication Specialist 2nd Class Ian Carver)







# HOSPITAL CORPS

## Fleet Marine Force Reconnaissance Corpsman/Independent Duty Corpsman HM 8427/8403

Provides medical and operational services for Fleet Marine Forces, Special Operations Forces and Special Operations Command personnel engaged in direct action, special reconnaissance, foreign internal defense, irregular and unconventional warfare independently of a medical officer. Performs clinical diagnostics, advanced paramedical skills, Advanced Cardiac Life Support (ACLS), basic surgical anesthesia, basic dental exams, and other routine and emergency medical health care procedures as required. Performs associated operational administrative and logistical duties. Supervises and manages field medical activities in a conventional or unconventional warfare environment. Orders, stores, catalogs, safeguards and distributes medical supplies, equipment, and pharmaceutical supplies. Supervises clinical and field long term care and treatment during peacetime, CONUS and OCONUS split detachment operations. Advises and provides tactical and technical guidance to the Detachment Commander, indigenous and allied personnel. Responsible for the planning, execution and supervision of cross training of detachment members in medical skills. Required to maintain skills and certifications in Advanced Tactical Casualty Care with a greater than 96 hour patient sustainability without evacuation or augmentation. In unconventional warfare environment, instructs medical personnel, manages guerilla hospitals and field evacuation nets; coordinates the operation, interaction and activities of medical facilities within an area of operation; manages battalion size troop medical clinic and its administrative and logistical support. Establishes a base stock of medical supplies and equipment, internal or external procurement, storage, security and distribution of those items. Coordinates veterinary training and support for area requiring animal transportation or use. When directed, conducts operational and intelligence planning, preparation and execution of detachment missions. Maintains Special Operation Forces Advanced Tactical Practitioner (ATP) requirements to include Tactical Combat Casualty Care (TCCC), USSOCOM Tactical Trauma Protocols, Basic Life Support (BLS), Prehospital Professionals (PEPP), Advanced Cardiac Life Support (ACLS), and Tactical Medical Emergencies Protocols (TMEPS). Provides health care as a non-physician health care provider when assigned to fixed medical treatment facilities.



Navy Hospital Corpsman 3rd Class Michael Soto, the corpsman for Bridge Platoon, Alpha Company, 9th Engineer Support Battalion, guides the litter-bearers to the landing zone during a medical evacuation of a Marine who was injured during construction of a bridge in the district of Garmsir, Helmand province, Afghanistan. (Photo by Marine Corps Cpl. Bryan Nygaard)





Hospital Corpsman 1st Class David Hernandez instructs his assistant, Hospital Corpsman 2nd Class Asterik Knotts, on the molding of a set of prosthetic teeth in the dental laboratory aboard the Nimitz-class aircraft carrier USS Abraham Lincoln (CVN 72).  
(Photo by Seaman Dagan Alexander)

### Hospital Corpsman Dental Laboratory Basic/Advanced HM 8752 and 8753

Basic Dental Laboratory Technicians perform basic and intermediate level prosthetic laboratory procedures. Fabricates and finishes dental prostheses: complete dentures, removable partial dentures and other prescribed protective and restorative intraoral appliances. Repairs, reconstructs, and relines dental prostheses. Conducts routine and prescribed equipment maintenance. Advanced Dental Laboratory Technicians perform and supervise procedures and techniques required in the construction of complex and precision dental prostheses: fixed partial dentures, porcelain fused to metal systems, dental ceramic arts, precision attachment prostheses, and the arrangements of artificial teeth for aesthetic, phonetic and functional requirements. Coordinates technical and clinical application and dental technology training. The Hospital Corpsman Dental Laboratory Basic and Advanced technicians deploy onboard U.S. Navy Ships and with the Fleet Marine Force.

**HM-8493** - Dive Medicine Technician-  
DSTC Panama City, Fla.

**HM-8494** - Dive IDC- NOMI San Diego,  
Calif.

**HM-8496** - Morticians- a dozen Navy  
wide- Must have civilian licenses-Recruited as  
Morticians

**HM-8503** - Histology Technician- San  
Antonio, Texas

**HM-8506** - Medical Laboratory Techni-  
cian- San Antonio, Texas

**HM-8541** - Respiratory Therapy Techni-  
cian- San Antonio, Texas

**HM-8701** - Dental Assistant- San Antonio,  
Texas

**HM-8702** - Advanced Dental Assistant-  
San Diego, Calif.

**HM-8708** - Dental Hygienist- PJC Pen-  
sacola, Fla., CCC Camp Lejeune, N.C.

**HM-8752** - Basic Dental Laboratory Tech-  
nician- San Antonio, Texas

**HM-8753** - Advanced Dental Laboratory  
Technician- San Antonio, Texas

**HM-8765** - Maxillofacial Technician-  
Bethesda, Md.

# GLOBAL HEALTH ENGAGEMENT

Established in October 2012, the Navy Global Health Engagement (GHE) Office advises the Navy Surgeon General and Deputy Surgeon General on matters involving global health policy, humanitarian assistance (HA), disaster relief (DR), health related stability operations, security cooperation/assistance and health diplomacy. The Office of the Special Assistant serves in a coordinating manner for Navy Medicine with DoD, the inter-agency, specific Host Nations and other organizations that facilitate mission execution of GHE related issues.

A focus on health has the potential to bridge all nations, cultures and institutions and builds a common denominator in order to create bilateral and multilateral relationships in a collegial and non-threatening manner. These relationships can lead to long-term stability, security and economic prosperity in communities, nations

and regions around the world. Health discussions and engagement continue to be an important conduit to accessing and expanding peaceful cooperation with potential host nations and partner nations. In addition, health—whether through health diplomacy, humanitarian assistance or disaster relief—serves an access point for the Navy to discuss other issues. The use of health may open access that facilitates the creation of enduring partnerships and influences positive policy decisions in specific host nations and partner nations. From a strategic perspective, the Navy possesses and utilizes unique and substantial assets for global health engagements, including extensive geographic reach, historic and prominent partnerships with foreign actors, an ability to rapidly mobilize resources, scientific and technical expertise and a unique group of health professionals accustomed to providing care in austere environments.

The Navy Medicine lines of personnel and organization effort have a world-wide reach, touching every Combatant Command (COCOM), all of the respective Fleets and Marine Expeditionary Forces. These include:

- **Health Affairs Attaches (HAAs):** Navy Medicine via GHE supports two health attaches embedded in embassies in Vietnam and Papua New Guinea. Their mission is to advise the ambassador on health matters in that country, engage local populations on regional health issues, facilitate overall SC efforts and build partnership capacity where possible. The GHE office serves as a central point of support and coordination for HAAs.
- **Liaison Officers (LNOs):** Navy Medicine via GHE supports LNOs that work in positions involving global health as an SC tool. These positions include OSD(Policy), US-AID, Health and Human Services (HHS), CDC, the World Health Organization (WHO) in Geneva and Copenhagen, Office of Assistant Secretary of Defense (Health Affairs) International Health Division, the



Hospital Corpsman 3rd Class Kevin Malone takes a blood sample from a Cambodian woman during a medical civic action project at Kandol Dom Primary School. (Photos by Kristopher Radder)





**Hospital Corpsman 2nd Class Kristen Forsgren rubs the head of a four-month-old Indonesian girl that received a surgery to repair her cleft lip aboard USNS Mercy (T-AH 19).**

Defense HIV Aids Prevention Program (DHAPP), Defense Institute of Medical Operations (DIMO) and the Center for Disaster and Humanitarian Assistance Medicine (CDHAM).

- **Navy-NGO Partnerships:** Since March 2012, the GHE office has worked with a core group of non-governmental organizations (NGOs) and Navy leadership on ensuring a standard memorandum of understanding exists among the respective Fleets and NGOs, creating open communication, developing a professional skills repository, integrating training and orientation, and facilitating a transition plan post HA/DR missions. This initiative builds on the lessons learned on HCA, HA/DR missions from 2005 to the present. APAN, an open-source collaboration tool, was instituted to engage military, NGOs and academia on topics of interest in a transparent

manner. Moving ahead, this office seeks approval of the Humanitarian Assistance and Disaster Relief Partnership Working Group and to work in support of the Fleet and Marine Forces in the development of a Memorandum of Understanding with NGOs.

- **DEFCON South Africa:** The South African Government and US Government established a Bi-National Commission in 1994 comprised of nine committees that include a Defense Committee. In 2000, the Defense Committee added a Military Health Working Group to address health issues spanning the spectrum of the operational continuum, but emphasizing disaster response and regional peacekeeping operations. A rotating co-chair plan was promulgated, whereby the U.S. co-chair rotates between the Army, Air Force and Navy. As of October 2012, the Navy assumed co-chairmanship.

- **Missions Involving GHE:** Many of the HCA related missions include a significant health component. These include Pacific Partnership, Continuing Promise and Africa Partnership Station.
- **Security Assistance:** Navy Medicine has trained/educated services members from the following nations:

American Samoa	New Zealand
Australia	Northern Marianas
Belize	Pakistan
Canada	Palau
Finland	Papua New Guinea
France	Peru
Germany	Philippines
India	Samoa
Israel	Saudi Arabia
Italy	Singapore
Maldives	Spain
Marshall Islands	Timor-Leste
Mexico	Tonga
Micronesia	Thailand
Netherlands	Vanuatu

# MEDICAL HOME PORT

## Medical Home Port

The Navy's Medical Home Port (MHP) model transforms the delivery of primary care to an integrated, team-based approach. The MHP team offers a comprehensive suite of services to meet the needs of Navy Medicine's beneficiaries. The goal is to provide patient-centered care that protects the patients' relationship with their PCM and MHP team, improves access to health care services and quality of care, increases patient and staff satisfaction, and controls the cost of care. MHP ensures that beneficiaries have enhanced access to top-quality primary health care services including readiness, prevention, behavioral health, and disease management.

### Focus on Team-Based Care, Provider Continuity, and Access

One unique aspect of MHP is its em-

phasis on team-based care. MHP teams work collaboratively to meet patient's needs. The core team is comprised of a provider, nurse, medical assistant or hospital corpsmen, and clerk. Based on patients' demand for health care services, MHP teams can also integrate behavioral health provider, pharmacist, case manager, or other integrated staff. The team structure allows each member of the MHP team to operate at the top of his or her license and work more efficiently and effectively. Through standardized guidance, patients are scheduled to their assigned PCM and MHP team to ensure provider continuity.

Patients benefit from the team structure and provider continuity. By ensuring patients see their PCM and healthcare team, MHP encourages the development of trusting, productive patient-provider relationships. As pro-

vider continuity increases, patients are more likely to follow healthcare advice and comply with treatment regimens. In addition, the team structure enhances clinic efficiency. The MHP team is better able to address the needs of their enrolled patient population, thereby improving patient access to care. The team also expands access by leveraging information technology tools such as Tri-Service Workflow to standardize documentation of care and secure messaging to provide patients virtual access to the MHP team. Military treatment facilities review key access and continuity performance measures to monitor MHP success.

### Emphasis on Health

MHP aims to improve population health by emphasizing preventive care, proactive intervention, care coordination, and chronic disease management. MHP provides a wide array of health care services, positioning them as a comprehensive clinic for patient's primary care needs. By integrating of behavioral health (BH) providers, the MHP team can address the unmet BH needs in primary care. BH providers can support the management of chronic medical and behavioral health conditions to improve health outcomes and control cost.

### Goal of Decreasing Costs

One of the most significant ways MHP lowers costs is through promotion of responsible use of the Emergency Room (ER). When patients know they can easily access their MHP team, they are less likely to go to ER for primary care needs. By ensuring access to their PCM and MHP team, patients are also less likely to use costly network care. By encouraging the patient relationship with their MHP provider, there has also been a reduction in unnecessary ancillary tests, as well as, avoidable hospitalizations and specialty care visits. MHP teams can identify, diagnose, and treat conditions before it advances to a tertiary care state.



Medical Home Port is a model of care that emphasizes a team-based, coordinated, and proactive approach. (Photo by Stan Jones)



# WOUNDED WARRIOR CARE

## Traumatic Brain Injury

Traumatic Brain Injury (TBI) has been called one of the “signature injuries” of the conflicts in Iraq and Afghanistan. A blow or jolt to the head or a penetrating head injury can disrupt the brain’s normal functioning. TBI is normally associated with blast exposures in theater, but can also occur aboard ships and in garrison, especially in training environments. The leading causes of TBI in the military are:

- Explosive blast, bullets, and fragments
- Falls
- Motor vehicle crashes
- Assaults

TBIs are classified as mild, moderate, severe, and penetrating, with mild TBI (mTBI) being the most common. Mild TBIs are also known as concussions. The most common symptoms of mTBI are:

- Headaches
- Dizziness

- Fatigue
- Problems concentrating
- Memory problems
- Irritability
- Balance problems
- Changes in vision
- Trouble sleeping

DoD requires deploying “boots on the ground” Sailors and Marines to take the Automated Neurocognitive Assessment Metrics (ANAM) prior to deployment, and screening questions to identify service members who have sustained a TBI during deployment are part of the mandatory Post-Deployment Health Assessment (PDHA) and Reassessment (PDHRA). In theater, service members with potential TBI are screened by corpsmen using the Military Acute Concussion Evaluation (MACE) and sent for further medical assessment as needed.

The Navy has several initiatives to assess and care for Sailors and Marines with TBI. Navy Medicine’s Wounded,

Ill, and Injured (WII) Program oversees several clinical initiatives to help identify service members with clinical symptoms and BUMED Instruction 6310.12 has defined the level of care provide at all Navy medical facilities and NAVMED POLICY 11-004 defines the level of training required for providers taking care of patients with TBI. To better identify cognitive and physical symptoms in service members that may not be found in traditional testing, the Naval Health Research Center is testing a Computer-Assisted Rehabilitation Environment (CAREN) system that allows medical personnel to assess the patient in a variety of settings (i.e. urban, mountain, maritime).

In addition to Navy-unique TBI programs, Navy Medicine works closely with operational medical leaders and our Army, Air Force, Veterans Affairs, Defense and Veterans Brain Injury Center (DVBIC), and Defense Centers of Excellence (DCoE) for Psychological



**Marine Cpl. Toran Gaal, assigned to the Marine Wounded Warrior Battalion-West detachment at Naval Medical Center San Diego (NMCS), walks on his new prosthetics in the Comprehensive Combat and Complex Casualty Care facility at NMCS.**

*(Photo by Mass Communication Specialist 3rd Class Jessica L. Tounzen)*

# WOUNDED WARRIOR CARE

Health and Traumatic Brain Injury colleagues to provide the best care possible to our Sailors and Marines.

## Concussion Restoration Care Center (CRCC)

Navy Medicine has worked closely with the Marine Corps to staff and equip a Concussion Restoration Care Center (CRCC) at Camp Leatherneck, Afghanistan. The CRCC is a new concept created to provide musculoskeletal and post-concussion care in theater to service members who can likely return to duty after a short period of rehabilitative care, but whose injuries are not severe enough to require medical evacuation.

The CRCC is staffed with a sports medicine family physician, physical

therapist, occupational therapist, and a psychologist. This team augments the Combat Operational Stress Team (COST) and Marine medical staff attached to the Medical Battalion.

## The Role of Case Management in the Care of the Wounded Warrior

Navy Case Managers provide services to the Wounded Warrior that span the entire care continuum from point of injury to either return to active duty service or medical separation from service.

The journey from theatre to stateside care is only the beginning of a long road of recovery for returning WII Warriors who are often facing extensive care and rehabilitation for life-changing physical, psychological and cognitive injuries. The

complexity of medical health care and military systems is often overwhelming to the WII service members, thus driving a critical need for someone to coordinate care and support services. Case managers are the “SOS or 1-800” contact for the patient and family throughout the continuum of care. The case managers of Clinical Case Management along with Navy Safe Harbor and the U.S. Marine Corps Wounded Warrior Regiment working together has allowed for a more holistic transition of the WII into the VA or civilian care systems by addressing both the medical and the non-medical needs concurrently to help reduce the stress and confusion of transition.

Military case management, both medical and non-medical, is at the heart of ensuring the development of comprehensive plans of care for each patient and then linking all communications, hand offs, support services and smooth transitions for these WII service members and their families.

## Comprehensive Combat and Complex Casualty Care

The Comprehensive Combat and Complex Casualty Care (C5) rehabilitation program is located at Naval Medical Center San Diego (NMCSD). Working in concert with other services at NMCSD and with community partners, C5's continuum of care addresses the physical, emotional, spiritual, and mental health well-being of its patients.

Comprehensive Combat and Complex Casualty Care (C5) is a program of care that manages severely wounded, ill or injured patients from medical evacuation through inpatient care, outpatient rehabilitation, and eventual return to active duty or transition from the military.

### Program components include:

- Trauma Service--coordinates overall inpatient clinical management of injured service member
- Orthopedic, reconstructive plastic surgery, and wound care
- Amputee care, prosthetics, and re-

**Marine Cpl. Michael Fox pets Tommy, Naval Medical Center San Diego's Comprehensive Combat and Complex Casualty Care (C5) facility service dog during his physical therapy appointment. Tommy, a 4-year-old black lab golden retriever mix, provides emotional support to patients during their physical therapy appointments.**  
(U.S. Navy photo by Mass Communication Specialist 2nd Class John O'Neill Herrera)





habilitation

- Physical, occupational, and recreational therapy
- Mental health assessments and care
- Traumatic Brain Injury (TBI) care
- Pastoral care and counseling
- Family support and career transition services

**Prosthetic services include:**

- Casting, fitting, and alignment for amputees by certified prosthetists and prosthetic technician staff.
- Lamination station to fabricate carbon interfaces for both definitive and temporary prosthetic sockets
- Advanced bionic technology room to fit power knees, microprocessor knees, powered ankles, and upper extremity myoelectric arms.
- In house lab to facilitate everyday prosthetic adjustments.
- Advanced patient casting room with Computer Assisted.
- Design and Manufacturing (CAD-CAM) system.
- Laser technology for scanning the anatomical residual limb (eliminates the need for plaster casting).
- Hand held scanner for visual tracing and mobility.
- Modification of limb shapes with most advanced computer software technology.

### **My Ongoing Recovery Experience (MORE)**

The online program called Navy MORE (My Ongoing Recovery Experience) rolled out in August 2010. While it is on line, it is only available to those enrolled in the program. The Navy MORE program will provide never-before-achieved continuity of care for military personnel, family members and retirees in early recovery from addiction anywhere in the world, at anytime.

The online Navy MORE program – created in collaboration with Hazelden, one of the world's largest and most respected private, non-profit alcohol and drug addiction treatment centers – is a customized, interactive and confidential recovery tool.

It is available free-of-charge to military personnel, family members and retirees who are in the Navy Substance



**Wounded Warriors participate in wheel chair basketball practice as part of the first Wounded Warrior Pacific Trials at the Joint Base Pearl Harbor-Hickam Gym. Nearly 50 seriously wounded, ill and injured Sailors and Coast Guardsmen from across the country are competed for a place on the 2013 Warrior Games Navy-Coast Guard team. (Photo by Mass Communication Specialist 2nd Class Daniel Barker)**

Abuse and Rehabilitation Services program in recovery anywhere in the world where Internet access is available.

### **Project C.A.R.E. (Comprehensive Aesthetic Restorative Effort)**

As a result of combat trauma and training accidents, a great number of service members suffer major life altering injuries, to include limb loss and severe disfigurement. Although wounded Sailors, Marines and Soldiers receive cutting-edge, state-of-the-art care; the consequences of these injuries lead to emotional distress and an altered self-image.

To help traumatically wounded recover, both physically and emotionally,

Project C.A.R.E. was born. Its mission is to provide emotional support along with surgical and non-surgical care in an effort to improve appearance and restore function. It has been found that even the slightest improvement can dramatically increase self-esteem and quality of life.

Utilizing a team approach with multiple surgical, medical, and supportive services, each patient is individually evaluated and a treatment plan is formulated. Depending upon the circumstances, a combination of surgical and non-surgical treatments is planned, along with an emotional recovery plan to include support groups, mental health counseling, or both.

# MENTAL HEALTH CAPABILITIES

## Operational Stress Control (OSC) Resources

Navy Operational Stress Control (OSC) is a program supported by Navy Medicine. The foundation of OSC is the Stress Continuum Model that provides Sailors, leaders and family members a visual tool for assessing stress responses and practical steps to take to mitigate stress injuries.

The Naval Center for Combat and Operational Stress Control was created to improve the psychological health of Navy and Marine Corps forces through training, education, care system improvement and facilitating research and information distribution. For more information, visit [www.nccosc.navy.mil](http://www.nccosc.navy.mil).

## Operational Stress Control and Readiness (OSCAR) Teams

The Marine Corps, in collaboration with Navy Medicine, has deployed the Operational Stress Control and Readiness (OSCAR) program, which embeds psychological health professional within operational units. OSCAR provides early intervention and prevention support throughout all of the phases of deployment. The OSCAR program is now available at all three active Marine divisions. Each OSCAR team consists of two specially trained psychiatric technicians. These teams provide education and consultation to commanders, entire units and individual Marines.

OSCAR team members are embedded with units both in garrison and in field training evolutions and provide a

variety of non-clinical support activities including psychological health surveillance, command liaison, preventative psychological health training, and coordination with external mental health services.

## Special Psychiatric Rapid Intervention Team (SPRINT)

Special Psychiatric Rapid Intervention Teams (SPRINT) are Navy Medicine's primary response resource in providing rapid short term support following operational mishaps and critical events involving loss of lives. The mission of SPRINT is to provide individuals with educational and supportive services in group and individual settings that are designed to facilitate the normal recovery process and reduce the potential for future problems that can impact operational readiness. Critical events for which a SPRINT is activated tend to be low frequency but high magnitude and dynamic occurrences that affect a command or community. SPRINT activation incidents include aviation mishaps, motor vehicle accidents with death resulting, natural disasters such as earthquakes, tornados, etc., and attacks on Navy vessels. A full team is typically comprised of a psychiatrist and/or psychologist, social worker, psychiatric nurse practitioner, chaplain, and neuropsychiatric technicians. Team composition is flexible and scalable by design which allows team composition to be built according to the nature and size of the event.

SPRINTs are located at Walter Reed

National Military Medical Center Bethesda, Md.; Naval Medical Center Portsmouth, Va.; and Naval Medical Center San Diego, but the flexible composition of the team means that mission specific teams can be created and deployed on very short notice. The addition of having trained and experienced medical personnel in forward deployed areas ensures that Navy Medicine not only has the correct medical capabilities, but also the flexibility that allows appropriate medical assets to be integrated from different areas to provide timely care in response to dynamic requirements.

## Overcoming Adversity and Stress Injury Support (OASIS)

The OASIS Program has developed a unique model of treatment incorporating evidenced-based therapies and integrative treatment approaches. The program begins with a comprehensive two week intensive stabilization process by providing treatment focused solely on developing coping skills. Trauma therapy begins after that time to ensure patients are better able to tolerate distress.

Along with highly trained and experienced treatment staff, integrative approaches are provided by experienced community volunteers specializing in various practices, offering a comprehensive program to treat mind and body. Current courses offered are yoga, meditation, spirituality, recreation therapy, and art therapy. In addition, OASIS patients provide valuable time giving back to the community through volunteerism and working with the Veteran communities. Upon stabilization, patients partake in therapeutic passes allowing in-vivo exposure to specific post traumatic stress disorder triggers and continuously working towards goals identified in treatment. OASIS operates within a military treatment setting to ensure that the military culture is maintained, minimizing incongruence transitioning from civilian care and treatment back into a military setting.

## Behavioral Health Integration Program

The Behavioral Health Integration Program (BHIP) in the Medical Home is:

SPECIALTY	MILITARY	CIVILIAN	CONTRACTOR	TOTAL
Psychologist	129	107	72	308
Psychiatrist	106	39	27	172
Social Worker	48	96	66	210
Mental Health Nurse	71	16	47	134
Mental Health Nurse Practitioner	26	2	8	36
Other Licensed MH Provider	0	22	28	50
Tech/Counselor	377	39	165	581
Total	757	321	413	1491





**Chandra Upshaw, a member of the Operational Stress Control Mobile Training Team, teaches a front line supervisor training class to Sailors aboard the aircraft carrier USS Nimitz (CVN 68). Nimitz successfully completed the ship's Joint Task Force Exercise (JTFEX), designed to test a strike group's ability to operate in hostile and complex environments with other U.S. and coalition forces. (Photo by Mass Communication Specialist 3rd Class Devin Wray)**

- An innovative way to combine two best practices for behavioral health integration in the primary care setting.
  - The creation of three new Medical Home Port team members whose sole responsibility is to assist the MHP team in addressing the behavioral health needs of all patients (active duty, dependents and retirees).
  - Internal Behavioral Health Consultant – a licensed independent mental health provider who provides same day and scheduled appointments at the request of the PCM. The goal is to support the PCM in addressing the behavioral health needs of the population.
  - Care Facilitator – typically a nurse who provides care facilitation at the request of the PCM. The primary focus is on patients with depression and/or PTSD.
  - External Behavioral Health Consultant – a licensed independent psychiatric prescriber who is located remotely but remains readily available to the MHP team for consultation
- The Behavioral Health Integration Program was developed to address the following concerns:

- A significant number of patients with unmet mental health needs.
- Due to limited access the majority of

retirees and dependents are sent out of the military health system for care which increases cost.

- Inconsistency in the quality of care delivered in primary care.
- A desire to meet the quadruple aim as outlined by the Tricare Management Agency (TMA).
- Stigma associated with seeking mental health services.

### **USMC Wounded Warrior Clinical Services Staff**

It is essential that wounded, ill and injured Marines and Sailors receive coordinated care for a successful recovery. Effective treatment programs for injured Marines and Sailors, assigned to Marine Corps units, are individualized and complex. The course of recovery can be long, may require multiple and repetitive needs assessments, complex documentation, and include medical and psychological health (PH)-related interventions as the injured Marine or Sailor makes the transition back to a functional and productive life, either back to military duty or to civilian life. Many specialists may be involved—including but not limited to trauma surgeons, mental health providers, physical therapists, occupational and vocational therapists, etc. The USMC Wounded Warrior Regiment (WWR) is the one

over-arching program that follows an injured Marine or assigned Sailor through this entire transition which often takes more than a year.

To ensure success with Marines and Sailors with significant injuries that impact their psychological health and well-being, BUMED developed a contract, in conjunction with, and to support the USMC WWR, to provide Licensed Clinical Services Staff, primarily experienced clinical social workers and nurses, and experts in PH, especially Post Traumatic Stress Disorder (PTSD), and in Traumatic Brain Injury (TBI). Currently, a total of 11 BUMED-contracted staff members support this comprehensive program world-wide at the WWR Headquarters, East and West Coast Battalions and their Detachments for injuries related to PH and TBI to ensure that every Marine and Sailor, assigned to the Marine Corps units, receive the best prevention, identification, and treatment that is available. In addition, they assist USMC leadership in developing policies and procedures for PH and TBI, facilitate clinical assessments, and support the successful case management of individuals assigned to the WWR. Currently, staff are assigned at Camp Lejeune (1); Camp Pendleton (1); Marine Corps Base Hawaii (1); and Quantico (4). At Quantico, there is also a TBI program coordinator, a PH program coordinator, and 2 administrative assistants. WWR staff, Marine Corps units and families are also provided support. Program objectives include increasing Marines and Sailors awareness of PH and TBI symptoms and resources and improving the continuity and coordination of care for the wounded Marines and Sailors transitioning back to military duty or civilian life.

### **Reserve Psychological Health Outreach Program (PHOP)**

The Psychological Health Outreach Program (PHOP) was established in September 2008. There are 30 staff; 10 Outreach Coordinators and 15 Outreach Support Team Members, co-located with Reserve Component Command staff in six regions: Mid-Atlantic, Southeast, Southwest, Northwest and Midwest. The U.S. Navy Reserve PHOP does not provide

# MENTAL HEALTH CAPABILITIES

direct treatment or counseling. PHOP staff provides Resource Management service. The dynamic teams of clinically licensed professionals provide thorough therapeutic Behavioral Health Screening (BHS). Comprehensive BHS allow the Service Member and loved one to fully assess the individual's current degree of functioning on several levels including: psychological, physical, social, and family well-being. In addition to psychological health services, the PHOP Resource Specialist also assists with concrete service referrals, which can include, but are not limited to housing, food and employment assistance.

After the initial screening PHOP teams provide intense follow-up which

includes linking the client with "good fit" providers that can be military or community based depending on the clients location, socio-economic status, and health insurance eligibility. PHOP Outreach Support Team Members also provide Outreach calls to recently demobilized Service Members as well as Psycho-educational briefings on a variety of topics including BUMED approved suicide and Operation Stress Control. In addition to calls and briefings, PHOP staff is also on occasion called to assist with local crisis and national disasters. For more information on PHOP, visit <http://www.navyreserve.navy.mil/pages/phop.aspx>.

## Returning Warrior Workshops (RWWs)

Making a successful transition from the war zone to the home front is the focus of Returning Warrior Workshops (RWW), a well-received program for Navy and Marine Corps Reservists. The workshops are expense-paid weekend events for about 200 service members and their spouses or significant others. In addition to presentations from senior military leaders who have been in combat, there are breakout sessions where participants discuss and help learn to resolve stressful situations arising in deployment and reintegration. A number of support services are available at the workshops along with counselors, psychological health outreach coordinators and chaplains to assist service members in re-acclimating with their families and to civilian life. For more information on workshops in your area, visit <https://www.navyreserve.navy.mil/reservefamilies/Pages/YellowRibbonRe->



**Navy Medicine has a variety of resources to address mental health concerns of service members and their families.** (Photo by Marine Corps Cpl. Bryan Nygaard)





**Project FOCUS (Families OverComing Under Stress)** is one of Navy Medicine's programs for service members and their families. It is designed for families needing to ramp up their resiliency to best handle the demands of a deployment and combat and operational stress.

integrationProgram.aspx.

Through the provision of engaging personal processes in a carefully planned flow of plenary and breakout sessions, which have been developed and refined for increased effectiveness and fit over time, a unique non-stigmatizing environment of healing is created that:

- Assists demobilized service members and their loved ones in identifying immediate and potential issues or concerns that often arise during post-deployment reintegration.

- Provides Chaplains and PHOP team members to provide appropriate resources to resolve issues and mitigate stress (both from deployment and from their life experiences).

- Encourages reserve members to share common experiences and challenges in a safe, supportive and non-threatening environment.

- Honors service members and their loved ones for their sacrifices in a formal Banquet of Honor -- a peak experience of the weekend.

- Engages service members and their families in process improvement both to improve the deployment cycle support process by commands, and the reintegration experience for the reservists and

their loved ones. It provides encouragement and support that allows them to develop a greater awareness of ways to move forward and make plans for the future. Service members often realize Post-Deployment Growth and identify critical changes they want to make in their lives as a result of the weekend experience.

Evaluations show that Reservists and their families or significant others are being positively impacted by attending the RWWs and that they would recommend them to others.

### **Project FOCUS**

Project FOCUS (Families OverComing Under Stress) is designed for families needing to ramp up their resiliency to best handle the demands of a deployment and combat and operational stress. Through parent, child and family sessions, FOCUS helps Navy and Marine families develop strong skills in problem solving, goal setting, communication and emotional regulation. The free program is offered through BUMED in collaboration with the University of California, Los Angeles. For details and a list of FOCUS locations, go to [www.focusproject.org](http://www.focusproject.org) or call (310) 794-2482.

### **Substance Abuse Rehabilitation Program**

Navy Medicine's Substance Abuse Rehabilitation Program (SARP) provides substance use screenings for potential alcohol and drug problems among all active duty, retired, & qualified family members across the enterprise. SARP provides education, Intensive OutPatient (IOP) Substance Abuse Treatment and case manages addictions treatment. The program works closely with Navy Drug and Alcohol Program Advisors (DAPA), Marine Corps Substance Abuse Control Officers (SACO), and U.S. Coast Guard Command Drug & Alcohol Representatives (CDAR) to provide care.

### **Additional Resources**

Navy Suicide Prevention Website: [www.suicide.navy.mil](http://www.suicide.navy.mil)

Combat operational stress control/management, resiliency materials and programs designed specifically for the Navy population are accessible at [www.nmcph.med.navy.mil/healthy\\_living/psychological\\_health/stress\\_management/operandcombatstress.aspx](http://www.nmcph.med.navy.mil/healthy_living/psychological_health/stress_management/operandcombatstress.aspx).

Synthetic Drugs and Your Health: <http://www.med.navy.mil/Pages/Spice.aspx>

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